"EFFECTIVENESS OF MULTIMEDIA EDUCATION ON LEVELS OF KNOWLEDGE, ATTITUDE AND EXPRESSED PRACTICES REGARDING CANCER BREAST AND SCREENING AMONG WOMEN AT SELECTED URBAN AREA, VELLORE"

M.Sc (NURSING) DEGREE EXAMINATION

BRANCH-III OBSTETRICS AND GYNAECOLOGICAL NURSING

SRI NARAYANI COLLEGE OF NURSING

VELLORE-55

A Dissertation submitted to

THE TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY,
CHENNAI-600 032.

In partial fulfilment of the requirement for the degree of

MASTER OF SCIENCE IN NURSING.

APRIL-2016.

CERTIFICATE

This is to certify that the dissertation titled is **"EFFECTIVENESS OF MULTIMEDIA EDUCATION ON LEVELS OF KNOWLEDGE, ATTITUDE AND EXPRESSED PRACTICES REGARDING CANCER BREAST AND SCREENING AMONG WOMEN AT SELECTED URBAN AREA, VELLORE"** is a bonafide research work done by **Mrs.S. Emerald Raja Kumari**, Sri Narayani College of Nursing, Vellore-55, in partial fulfilment of the requirement for the degree of Master of Science in Nursing , Branch- III Obstetrics and Gynaecological Nursing, under my guidance and supervision during the academic year 2014-2016.

_____

Prof . Mrs. Lalitha Purushothaman, M.Sc(N).,M.Phil.,
Administrative cum liaison Officer,
HOD of Nursing Research Department,
Sri Narayani College of Nursing,
Thirumalaikodi,
Vellore-55

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Approved by Dissertation Committee on July 2015

RESEARCH GUIDE:

Prof.Mrs. SUJATHA.V.,M.Sc.(N), ----------

Principal and Research Co-Ordinator,

Sri Narayani College of Nursing,

Vellore-55.

SPECIALITY GUIDE:

MRS. SUDHA.R.,M.Sc.(N),MBA(HM), ----------

Professor,

HOD-Obstetrics and Gynaecological Nursing,

Sri Narayani College of Nursing,

Vellore-55.

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By

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Branch-III Obstetrics and Gynaecological Nursing,

Sri Narayani College of Nursing,

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Internal Examiner External Examiner

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ABSTRACT

Introduction:

Breast cancer is a global health problem and also the leading cause of death in low – resourced countries.

Statement of the problem:

Effectiveness of multimedia education on levels of knowledge, attitude and expressed practices regarding cancer breast and screening among women at selected urban area, Vellore.

Objectives:

- To assess the pretest levels of knowledge, attitude and expressed practices regarding cancer breast among women.
- To evaluate the effectiveness of multimedia education regarding cancer breast among women.
- To associate the posttest levels of knowledge, attitude and expressed practices regarding cancer breast among women with selected demographic variables.
- To perform screening for cancer breast by clinical breast examination.

Methods:

A Quantitative approach and a one group pre and post test research design was adopted. Systematic sampling technique was used to select 60 women in Kaspa urban area.

Results and Interpretation:

Regarding the effectiveness of multimedia education the pretest knowledge mean score was 6.72 ± 2.74 and the posttest knowledge mean score was 19.47 ± 2.43. The calculated paired "t" test value 40.81 was higher than the table value 2 which was significant at $p<0.05$ level. The pretest attitude means score was 2.25 ± 0.8 and the posttest mean score was 8.12 ± 1.01. The calculated paired "t" test value 23.6 was higher than the table value 2 which was significant at $p<0.05$ level. The pretest

expressed practices mean score was 22.3 ± 4.11 and the posttest mean score was 40.9 ± 7.23. The calculated paired "t" test value 21.4 was higher than the table value 2 which was significant at $p<0.05$ level.

Regarding the association between posttest levels of knowledge and selected demographic variables such as education, religion, and dietary habits are statistically significant at $p<0.05$ level. With regard to the association of posttest levels of attitude and expressed practices with selected demographic variables, religion, parity and duration of breast feeding for the last child are significantly associated at $p<0.05$ level respectively.

Conclusion:

The findings of the study concluded that there was significant increase in the level of knowledge, favourable attitude and good expressed practices of women after the multimedia education. This shows that the multimedia education was effective.

Keywords:

Effectiveness, multimedia education, knowledge, attitude, expressed practices, screening, cancer breast.

CHAPTER I

INTRODUCTION

Breast cancer is a global health problem and the most common cancer amongst women, comprising 23% of the female cancers (Parkins &Fernández 2009). It is also the leading cause of cancer-related deaths in low-resourced countries. Women in any age range are at risk of breast cancer and the risks increases with advanced age (Omotara et al. 2012). Despite the development of advanced technology in the detection of breast cancer, the mortality rate remains high. Breast cancer is the main cause of cancer mortality in women aged 40–44 years old (Alwan et al. 2012; Khanjani, Noor &Rostami 2012). Although substantial improvement in survival has been reported in high-income countries, the risk continues to increase. The survival rates in middle- and low-income countries remain low (Alwan et al. 2012).

It is estimated that by 2030 the global burden of breast cancer will increase to over 2 million new case per year. Furthermore it is estimated that this increase in cases will be largely due to increasing incidence in developing regions of the world.

Breast Cancer is the most common cancer among urban Indian women. In rural India cervical cancer is more prevalent; but even there breast cancer takes a close second place. India with a population of 1.2 billion is the most populous democracy in the world. Although the focus of public health has been mostly on infectious diseases in the developing countries, non communicable disease like cancer also take an increased toll on resources. Unlike other cancers, breast cancer is eminently treatable if detected at an early stage. There is a need for culturally appropriate breast cancer education and intervention strategies. In India the incidence

of breast cancer is increasing. This increase may be associated with greater urbanization and improved life expectancy.

About 5% -10 % (per ACS literature) of all breast cancers are thought to be related to genetic predisposition. Molecular tests are available to identify BRCA1 and BRCA2 genetic susceptibility, which is present in a small percentage of the population. BRCA1 and BRCA2 mutations are seen more often in women of Jewish ancestry. It has already been established that women with first-degree relatives who had breast cancer are at greater risk of getting it themselves. These women are encouraged to have screening tests earlier and sometimes more often than women without such a family history.

Risk is higher in women who have a personal or family history of breast cancer, biopsy-confirmed atypical hyperplasia, increased breast density, a long menstrual history (menstrual periods that started early and ended late in life), obesity after menopause, recent use of oral contraceptives or postmenopausal estrogens and progestin, who have never had children or had their first child after age 30, or who consume alcoholic beverages.

The higher incidence of breast cancer observed in the developed world as compared to the developing world reflect the long-standing high prevalence of reproductive factors associated with an increased risk of breast cancer including early menarche, late child bearing, fewer pregnancies, reduced duration of breast feeding, use of hormone replacement therapy as well as increased detection through mammographic screening.

Worldwide, breast cancer incidence rates appear to correlate with variations in diet, especially fat intake, although the specific dietary factors that affect breast cancer have not been firmly established. Vigorous physical activity and maintenance of a healthy body weight are associated with lower risk. Most data indicate tamoxifen decreases breast cancer risk and preliminary data suggest another selective estrogen-receptor modulator, raloxifene, does also.

Age at menarche is an important determinant of subsequent breast cancer risk. Estimates from a pooled analysis of the results of 21 studies shows that for each additional year age at menarche is postponed, premenopausal and postmenopausal breast cancer risk decreases by 9% and 4% respectively. The median age of menarche worldwide is 14 years with a range from 11-18 years and reported average later age of onset in Asian populations compared to the West. A study in South Indian women showed that the risk of both pre-menopausal and postmenopausal breast cancer decreased with delay of the onset of menarche.

Late menopause increases the risk of breast cancer. Women who have undergone the menopause have a lower risk of breast cancer than pre-menopausal women of the same age and childbearing pattern. Risk increases by almost 3% for each year older at menopause (natural or induced by surgery), so that a women who has the menopause at 55 rather than 45, has approximately 30% higher risk. The South Indian study showed an increased risk of breast cancer in woman who became menopausal after the age of 50.

Child bearing and breast feeding are of importance when considering subsequent breast cancer risk. The younger the woman is when she begins

childbearing, the lower her risk of breast cancer. The relative risk of developing breast cancer is estimated to increase by 3% for each year of delay. Childbearing reduces the risk of breast cancer and the higher the number of full-term pregnancies, the greater the protection. The risk of breast cancer reduces by 7% with each full-term pregnancy, and overall women who have had children have a 30% lower risk than nulliparous women.

Women who breastfeed reduce their risk compared with women who do not breastfeed. The longer a woman breastfeeds, the greater the protection, the risk is reduced by 4% for every 12 months of breastfeeding. There is also evidence that the reduction in risk of breast cancer with childbirth, and higher risk with later age at first full-time birth, may be limited to oestrogen-receptor-positive tumours.

The earliest sign of breast cancer is an abnormality that shows up on a mammogram before it can be felt by the woman or her health care provider. When breast cancer has grown to the point where physical signs and symptoms exist, a breast lump, or tenderness; skin irritation or dimpling; and nipple discharge and/or pain, scaliness, ulceration, or retraction may be noticed. Breast pain is commonly due to benign conditions and is not usually the first symptom of breast cancer.

Mammography is especially valuable as an early detection tool because it can identify breast cancer at an early stage before physical symptoms develop. Studies have shown that early detection saves lives and increases treatment options. The reduction in breast cancer mortality have been attributed, in large part, to the regular use of screening mammography and awareness education. The American Cancer Society recommends that women age 40 and older have an annual mammogram, an annual clinical breast examination by a health care professional (close to and

preferably before the scheduled mammogram), and perform monthly breast self-examination. Women ages 20-39 should have a clinical breast examination by a health care professional every three years and should perform breast self-examination monthly.

In the west, majority of breast cancers (read more than 75%) present in stage 1 and 2, resulting in good survival; and there are an ever increasing numbers of patients presenting with mammography detected cancer, with no symptom. India needs to reach this achievement, and it is only with aggressive promotion of screening and awareness and proper treatment that India will achieve early detection, adequate treatment and better survival.

They are all pointing to one necessity- screening for breast cancer. Since the numbers of cases are rising, younger women are getting affected, most are presenting only after symptoms develop (so usually stage 2B and beyond, rarely earlier stage) and we cannot prevent this cancer, all we can do is to detect this cancer early. SCREENING is the way to go.

NEED FOR THE STUDY

Breast cancer is the most common female cancer worldwide representing nearly a quarter (23%) of all cancers in women. The global burden of breast cancer is expected to cross 2 million by the year 2030, with growing proportions from developing countries. Although age-standardised incidence rates in India are lower than in the United Kingdom (UK) (25.8 versus 95 per 100,000), mortality rates are nearly as high (12.7 versus 17.1 per 100,000, respectively) as those of the UK.

Breast cancer is the most common malignancy in women, accounting for 29% of all female cancers; it accounts for < 1% of all cancer cases in men. Breast cancer also is responsible for 15% of cancer deaths in women, making it the number-two cause of cancer death. An estimated 234,190 new breast cancer cases will be diagnosed in women and 2,350 new cases will be diagnosed in men in the United States in 2015, and 40,290 women and 440 men will die of this cancer. As of 2014, there were more than 2.8 million women breast cancer survivors in the United States.

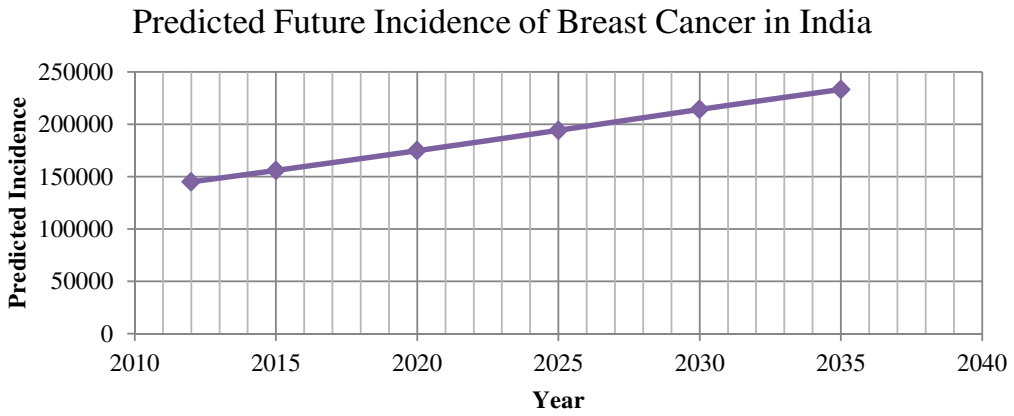
In 2015, there will be an estimated 1,658,370 new cancer cases diagnosed and 589,430 cancer deaths in the US. In 2015, there will be an estimated 60,290 new cases of breast carcinoma in situ diagnosed, 83% of which will be ductal carcinoma in situ (DCIS) and 12% lobular carcinoma in situ (LCIS).

In India, the overall incidence of breast cancer is less as compared to the US. But a look at the actual number of cases shows that India is not far behind. In the year 2014, there were about 232,714 breast cancer cases reported in the US, whereas in India, 1,45,000 new cases were women affected seems less, the breast cancer burden in India has almost reached about 2/3rd of that of the US and is steadily rising .

India has one of the lowest rates of breast cancer diagnosis globally; it has one of the highest mortality rates. Fifty percent of Indian women diagnosed with breast cancer will die due to the disease. In other words, for every two women diagnosed, one will die from breast cancer. This is in stark contrast to the mortality rates in other countries. In the United States for every six women diagnosed, one will die. China has a twenty five percent mortality rate. Due to early and regular screening in the United States and China the mortality rate is decreasing.

Breast cancer incidence rates within India display a 3- 4-fold variation across the country, with the highest rates observed in the Northeast and in major metropolitan cities such as Mumbai and New Delhi. Reason for this variation include differences in demographic (e.g.,education) reproductive (e.g., age at first child and number of children), anthropometric (e.g., adipodity) and lifestyle factors (e.g., tobacco smoking and alcohol use). The estimated number of breast cancer cases in India for the year 2010, 2015 and 2020 will be approximately 90,659; 106,124 and 123,634 respectively. So breast cancer is expected to cross the figure of 100,000 cases in year 2015.

By 2030 it is estimated that 1/5th of the world's cancer will be in India. This means that breast cancer rates will also increase significantly. Every year there has been a rise in incidence of 0.5% across all increase of India. This trend is only expected to accelerate. Importantly, there will be a rise in breast cancer across all age groups but those under 45 years of age will be especially affected. The incidence of breast cancer will exceed 200,000 cases a year by 2035.



With this increase in incidence, there will also be a corresponding increase in mortality. If no action is taken to reduce breast cancer in India and increase screening, mortality is predicted to reach almost 120,000 by 2035.

Breast cancer has overtaken cervical cancer to become the leading site of cancer in metro cities and is expected to double by 2015, experts said Wednesday. "Breast cancer has overtaken cervical cancer to become the leading site of cancer in Delhi, Bangalore, Mumbai, Chennai, Bhopal, Ahmedabad and Kolkata with the relative proportion ranging from 21.7 percent to 28.7 percent," said PK Julka, professor of Oncology, All India institute of Medical Sciences (AIIMS), New Delhi.

City or State	Five-year survival rate
Bangalore	42.3%
Chennai	48%
Kerala	40%
New Delhi	55%
Lucknow	62%

India's five-year survival rate is shockingly low in comparison to the United States and China. Their five-year survival rates are 90% and 82% respectively. Even though more women are diagnosed with breast cancer in these two countries, women survive longer than their Indian counterparts and are less likely to die due to the disease.

Preventive techniques to reduce breast cancer mortality and morbidity include breast self-examination (BSE), clinical breast examination (CBE), and mammography. CBE and mammography require hospital visit and specialized equipment and expertise whereas BSE is an inexpensive tool that can be carried out

by women themselves. BSE benefits women in two ways: women become familiar with both the appearance and the feel of their breast and detect any changes in their breasts as early as possible. In the literature, it is stated that 90% of the times breast cancer is first noticed by the person herself. Also, several studies have shown that barriers to diagnosis and treatment can be addressed by increasing women's awareness of breast cancer.

Raising general public awareness on the breast cancer problem and the mechanisms to control as well as advocating for appropriate policies and programmes are key strategies of population based breast cancer control. Many low and middle income countries face now a double burden of breast and cervical cancer which represent top cancer killers in women over 30 years old. These countries need to implement combined strategies that address both public health problems in an effective and efficient way.

So far the only breast cancer screening method that has proved to be effective is mammography screening. There is a evidence that organized population based mammography screening programmes can reduce breast cancer mortality by around 20% in the screened group. There is no evidence on the effect of screening through breast self-examination (BSE). However, the practice of BSE has been seen to empower women, taking responsibility for their own health. Therefore, BSE is recommended for raising awareness among women at risk rather than as a screening method.

Research is underway to evaluate Clinical Breast Examination as a low cost approach to breast cancer screening that can work in less affluent countries. Promising preliminary results show that the age standardized incidence rate for

advanced stage breast cancer is lower in the screened group compared to the unscreened group (Sankarnarayanan, 2011).

Researcher has observed in her personal experience has a staff nurse and supervisor in India and Abroad, that the screening for cancer breast is near nonexistent as compare to their counterparts in the developed countries. India have poor awareness and lack the will to spend resources like money and time for clinical breast examination and mammography.

Though there is no evidence on the effect of screening through breast self examination (BSE), However the practice of breast self examination (BSE) has been seen to empower women, taking responsibility for their own health , and early therefore, BSE is recommended for raising awareness among women at risk rather than as a screening method.

Breast cancers affects so many lives today especially in developing countries like India. So it is vital for the women to know about the breast cancer, risk factors and early detection methods such as breast self examination, clinical breast examination and mammography. The multimedia education programme will improve significantly the knowledge, attitude and practice of Breast Self – Examination in women. So the researcher felt the need to educate women through multimedia education in a selected urban area, Vellore.

STATEMENT OF THE PROBLEM:

"Effectiveness of multimedia education on levels of knowledge, attitude and expressed practices regarding cancer breast and screening among women at selected urban area, Vellore"

OBJECTIVES:

1. To assess the pretest levels of knowledge, attitude and expressed practices regarding cancer breast among women.
2. To evaluate the effectiveness of multimedia education regarding cancer breast among women.
3. To associate the post-test levels of knowledge, attitude and expressed practices regarding cancer breast among women, with selected demographic variables.
4. To perform screening for cancer breast by clinical breast examination.

OPERATIONAL DEFINITIONS:

Effectiveness: The significant difference in knowledge, attitude and expressed practicesregarding cancer breast which is determined by comparing the pre and post test scores.

Multimedia Education: It refers to an instructional method adopted using multimedia consists of organized and sequential representation of information regarding cancer breast.

Knowledge: It refers to correct response given by women as measured by structured interview schedule on cancer breast.

Attitude: It refers to the way of thinking of the women regarding cancer breast as elicited through attitude scale.

Expressed practice: It refers to the skill obtained by women in practicing breast self examination which is measured by check list.

Screening: It refers to an examination to detect the early signs of cancer breast using breast self examination and clinical breast examination.

Cancer Breast: Uncontrolled growth of breast cells in the lobes or ducts which is malignant.

Women: Adult females who belong to the age of 30 – 50 years.

HYPOTHESES:

H1-There are significant relationship between pretest and posttest levels of knowledge, attitude and expressed practices regarding cancer breast among women.

H2-There are significant association between posttest levels of knowledge, attitude and expressed practices regarding cancer breast among women and selected demographic variables.

LIMITATIONS:

The study is limited to women who

- belong to the age group of 30-50 years.
- are residing in Kaspa urban area, Vellore
- are not diagnosed as breast cancer

CONCEPTUAL FRAME WORK

The conceptual framework selected for this study is based upon the General systems theory developed by Ludwig Von Bertalanfly (1968).

According to the General systems theory, a system is a set of components or units interacting with each other within a boundary that filters the kinds and the rate of flow of inputs to and from the system.

System can be open or closed. Open systems are open for the exchanges of matter, energy and information with their environment from which the system receives input and gives back output in the form of matter, energy, and information.

Input is any type of information energy, and material that enters the systems from environment through its boundaries.

Throughput is a process that allows the inputs to be changed so, that it is useful to the system.

Output is any information, energy and material that leaves the system and enters the environment through the system boundaries.

Feedback is the environmental responses of the systems. Feedback may be positive, negative or neutral. Thus the functioning of open living system is cyclical which changes constantly.

Input:

In this study, input is the assessment of demographic variables, knowledge, attitude and expressed practices regarding cancer breast and breast self – examination

of women through structured interview schedule, likert attitude scale and checklist. This input is mentioned as pretest in this study.

Throughput:

Throughput is the activity phase, where multimedia education was given to the women by using breast model, LCD and Posters regarding cancer breast and breast self examination.

Output:

Output is the change in the levels of knowledge, attitude and expressed practices on cancer breast and breast self examination after multimedia education. It is evaluated by using the same structured interview schedule, likert attitude scale and checklist to the same samples after 7 days of multimedia education.

Feedback:

Feedback strengthens the input. Follow is essential for women who had moderately adequate or inadequate knowledge, favourable or unfavourable attitude and fair or poor expressed practices regarding cancer breast and breast self examination.

In this study before multimedia education programme, in pretest there was lack of knowledge unfavourable attitude and poor expressed practices regarding cancer breast and breast self examination. After the multimedia education, in posttest there was increased levels of knowledge, favourables attitude and good expressed practices were found.

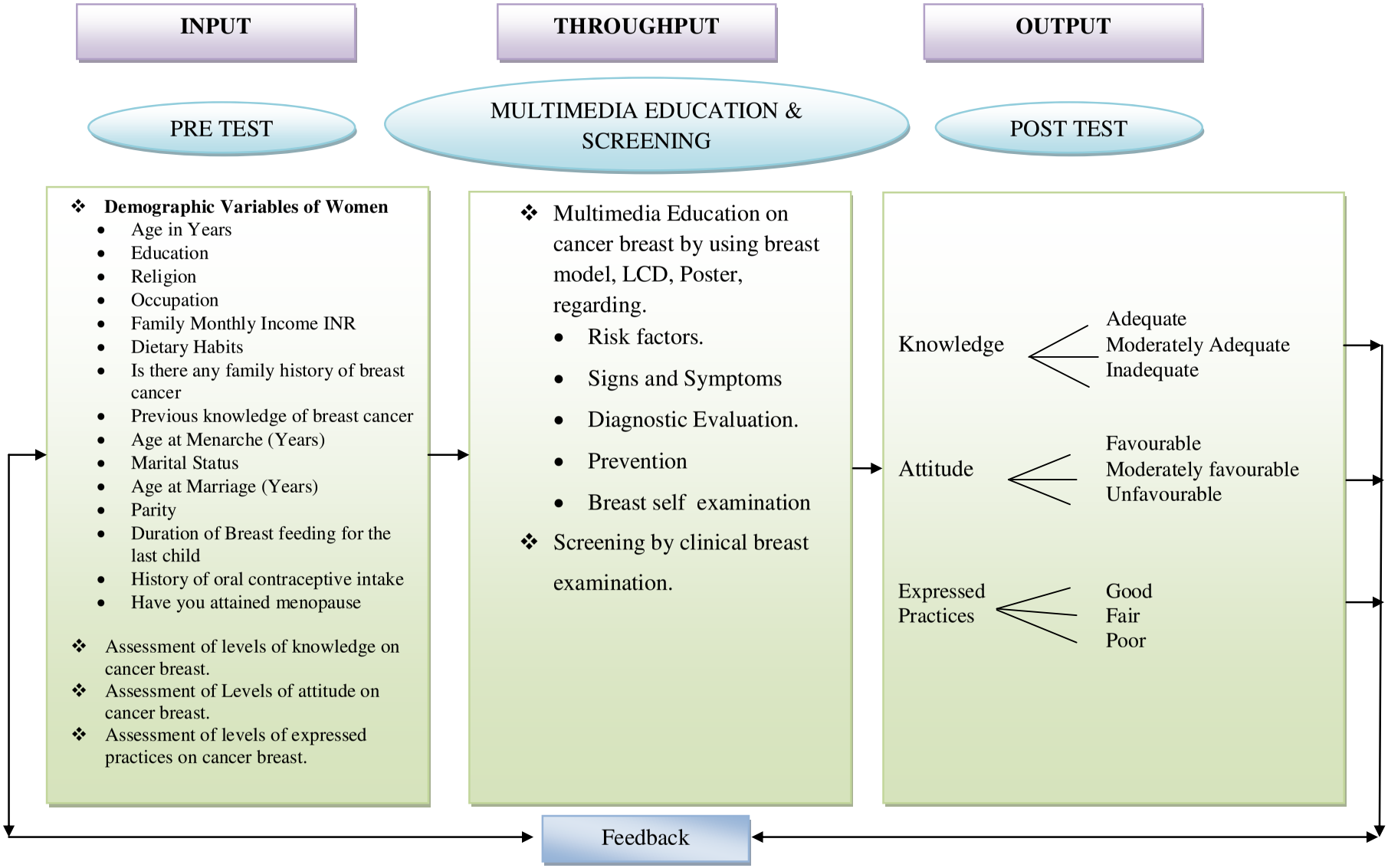


FIG 1: GENERAL SYSTEMS MODEL – LUDWIG VON BERTALANFFY (1968)

CHAPTER – II
REVIEW OF LITERATURE

A Literature review is a critical assessment of the relevant literature. A literature review discusses published information in a particular subject area within certain time period. A literature review can be just a simple summary of the sources. It might give a new interpretation of old material or combine new with old interpretations, or it might trace the intellectual progression of the field, including major debates. Depending on the situation, the literature review may evaluate the sources and advise the reader on the most pertinent or relevant matters.

An important aspect of research literature review is to make sure what is already done in relation to the problem of interest. Several studies which have been conducted in relation to intadialytic exercise which needs more focus for the development of future studies. The related literature has been organized under the following headings.

The review of literature in this study is organized as follows:

Section A: Studies related to risk factors on cancer breast.

Section B: Studies related to knowledge, attitude and practices regarding cancer breast.

Section C: Studies related to breast self-examination.

Section D: Studies related to effectiveness of education programme on cancer breast.

Section A: Studies related to risk factors on cancer breast:

Dr. Navneet Kaur.et.al, 2015 conducted a study on breast cancer risk factor profile in Indian women. This case-control study was conducted on 115 cases with diagnosed breast cancer and 127 controls. Socioeconomic, demographic, reproductive and other known risk factors were analyzed for their prevalence and odds ratio in the study population. There was a statistically significant increased risk with reproductive risk factors such as : early menarche (16 years, odds ratio (o.r) 4.36, 95% confidence interval (ci) 108-10.1, p6, o.r 2.5 ; 95% ci, 1.0-5.7; p=0.026), higher number of abortions (>2 or nil, o.r 4.5; 95% ci, 2.2-9.0; p = 10years, o.r 3.5 ; 95% ci 1.5-7.8; p = 0.006). Height (161, o.r 3.0; ci 1.0-9.9; p=0.039), history of breast biopsy (0 vs > 1, o.r 4.6; ci 1.2-16.9; p= 0.010). A higher mammographic density was found to be independent predictor of risk (75% vs 0%, o.r 5.9). This study suggests that many known reproductive risk factors have an association with increased risk for breast cancer though their prevalence is low in Indian population. Breast therapy and mammographic density are independent predictors of risk and may become useful tools in breast cancer risk assessment.

A.Gupta.et.al. 2015 conducted a structured literature search using combined keywords was undertaken on bibliographic databases including medline, cochrane database of systematic reviews, cumulative index to nursing and allied health (cinahl) and scopus. Searches were restricted to research published in english language peer-reviewed journals through December, 2014 in India. A total of 7066 women aged 15–70 years showed varied levels of awareness on risk factors such as family history (13–58%), reproductive history (1–88%) and obesity (11–51%). Literacy levels on risk factors did not improve over the 8-year period (2005–2013). On average, nurses reported higher awareness levels for risk factors such as family history (40.8–98%),

reproductive history (21–90%) and obesity (34–6%). The review revealed low cancer literacy of breast cancer risk factors among Indian women, irrespective of their socio-economic and educational background. There is an urgent need for nation- and state-wide awareness programmes, engaging multiple stakeholders of society and the health system, to help improve cancer literacy in India.

P. Parameshwari. et.al. 2013 conducted a population based case control study on breast cancer and associated risk factors among 100 breast cancer cases in the Arpookara panchayat of Kottayam district in Kerala. Data were collected by interviewing the participants using a pre tested structured questionnaire. The study results revealed that age group of participants ranged from 32-70 years, early menarche < 13 years, being unmarried and single, family history of breast cancer, previous history of benign breast tumours, breast feeding less than 2 years were found to be the risk factors for the breast cancer and the birth of first child before 30 years was found to be a protective factor for breast cancer and 60% of cases belonged to lower socioeconomic status. Despite high literacy status, significantly lower awareness about symptoms of breast cancer and self-examination of the breast were noted.

Libby M. Morimoto.et.al 2013 conducted a study to assess the relationship of several anthropometric measures and risk of postmenopausal breast cancer in 85,917 women aged 50–79 at entry in the women's health initiative oBSErvational study in US. Upon entry, trained clinical center staff measured each woman's height, weight, and waist and hip circumference. The results revealed that among HRT non-users, heavier women had an elevated risk of postmenopausal breast cancer compared to slimmer women. The elevation in risk associated with increasing BMI appeared to be most pronounced among younger postmenopausal women. This study concluded

that generalized obesity is an important risk factor for postmenopausal breast cancer, but only among women who have never taken HRT. Lifetime weight gain is also a strong predictor of breast cancer.

Section B: Studies related to knowledge, attitude and practices regarding cancer breast:

Dorah U. Ramathuba. et.al 2014 conducted a study to assess the knowledge, attitude and breast cancer screening practices amongst women aged 30–65 years residing in a rural south African community. A quantitative, descriptive, cross-sectional design was used and a systematic sampling technique was employed to select 150 participants. The questionnaire was used to collect the data from the participants and data analyzed descriptively using the predictive analytics software program. The results revealed that the level of knowledge about breast cancer of women in Makwarani community was relatively low. The attitude toward breast cancer was negative and the majority of women had never performed breast cancer diagnostic methods. The study concluded that health education on breast cancer screening practices is lacking and the knowledge deficit can contribute negatively to early detection of breast cancer. Based on the findings, community-based intervention was recommended in order to bridge the knowledge gap.

Rabia Latif.et.al.2014 conducted a cross sectional study to assess the knowledge and attitude of Saudi female students towards breast cancer in Saudi Arabia. One hundred and fifty females from a university in Saudi Arabia completed a questionnaire intended to provoke their sociodemographic information and knowledge, attitude and practices towards breast cancer. The results revealed that mean knowledge score was 16.6 out of 29. One hundred and six participants (70.7%) scored 50.0% and more. On the other hand, number of participants whose scores were

below 50% was rather less (44; 29.3%) and 50.7% participants admitted to carry out the breast self-examination procedure. Only 13 study participants (8.7%) had clinical breast examination and none of the participants had undergone mammography. This study concluded that female university students have minimal knowledge of breast cancer symptoms and management. They are also not clear about etiology and risk factors associated with breast cancer, practice of clinical breast examination and mammography was rare in the participants. There is a need to enhance their knowledge regarding breast cancer and emphasize the need of breast cancer screening programs.

Gangane , Sebastian MS 2013 a community-based cross sectional study was conducted in Wardha district, Maharashtra state in Central India in 2013 to assess the knowledge, attitude and practices about breast cancer. The sample included 1000 women (609 rural, 391 urban) aged 13-50 years, selected as representative from each of the eight development blocks in the district, using stratified cluster sampling. The instrument also assessed respondents' knowledge about breast cancer, its symptoms, risks, methods of screening, diagnosis, treatment, as well as their attitudes towards breast cancer and self-reported practices of breast cancer screening. The results revealed that knowledge about breast cancer was similarly poor in both rural and urban women. Urban women demonstrated more positive attitudes towards breast cancer screening practices than their rural counterparts. Better knowledge of breast cancer symptoms, risk factors, diagnosis, and treatment correlated significantly with older age, higher levels of education, and being office workers or in business. The study concluded that women in rural central India have poor knowledge about breast cancer, its symptoms and risk factors. Breast self-examination is hardly practiced,

though the willingness to learn is high. Positive attitudes towards screening provide an opportunity to promote breast self-examination.

Azubuike and S.O. Okwuokei 2013 was conducted a study in Oredo municipal council of Benin City to investigate the level of breast cancer awareness, attitudes and practices towards early detection strategies. Purposive, stratified and simple random sampling were used to select 365 women from 9 health facilities in 6 wards of the municipality. Self-administered questionnaires were used. The results revealed that about 90.5% (314/347) knew about breast cancer, but only about 49.71% (172/347) knew up to 3 breast cancer risk factors. A total of 65.2% (226/347) could identify up to two breast cancer signs and symptoms. While about 56.5% (195/347) knew at least one early detection strategy, it was however only about 17.73% (61/347) that practiced regularly at least one of the early detective procedures. Practice of early detection strategies was significantly associated with knowledge (p = 0.01 respectively).

Kiguli-Malwaddeelsie. et.al 2010 conducted a study to assess the knowledge, attitudes and practices of Ugandan women concerning breast cancer and mammography. A descriptive cross-sectional study where 100 women were selected by using consecutive sampling technique. They were interviewed using the questionnaire. The results revealed that most of the women (71%) had no idea about mammography, more than 50% did not know about risk factors for breast cancer and the attitude towards mammography was generally negative.

Section C: Studies related to breast self-examination:

Fon Peter.et.al.2015 conducted a study on knowledge, attitude and practice of breast self-examination among female undergraduate students in the university of Buea, Cameroon. The study comprised 166 female students of ages 17-30years (mean=22.8 ± 3) sampled randomly. Data was collected by a pretested self-administered questionnaire. The results revealed that only 9.0% knew how to perform BSE, only 13.9% knew what to look for while performing BSE, only 3% had performed BSE regularly. Furthermore, only 19.9% of the respondents have been to any health facility to have breast examination.

Elamurugan Sujindra.et.al.2015 conducted a study on knowledge, attitude, and practice of breast self-examination among female nursing students in IndiraGandhi medical college and research institute, Puducherry, India. A total of 254 female nursing students were included in the study and the questionnaire comprised of 21 questions (10 on knowledge, 5 on attitude, and 6 on the practice). The results revealed that response rate was 94.5%. Total mean knowledge score was 14.08 ± 3.42. 87.5% accepted that early detection can improve the chance of survival, 89.2% have heard of BSE and agreed that BSE can help in early detection of breast cancer, 93.3% felt it was necessary to do BSE and 87.5% have done BSE before, 5% of nursing students felt that doing BSE was embarrassing and only 33.3% performed BSE regularly in a year.

Soumya Thomas.et.al.2013 conducted a study on knowledge regarding breast self-examination among the women of reproductive age group in Mangalore. A survey approach with descriptive design was used for the study. The sample consisted

of 60 rural women of reproductive age group (18-45years), selected by non-probability convenient sampling method. Data was collected by administering structured knowledge questionnaire on breast self-examination prepared by the investigators. The results revealed that 1.66% of the women had very good knowledge, 3.33% women had good knowledge, 53.33% of women had average knowledge and 41.66% of women had poor knowledge.

Al-Naggar.et.al.2012 conducted a study on practice of breast self-examination among women in Malaysia. For this cross-sectional study, 250 women were selected by a simple random sampling technique. The questionnaire was consisted of three parts: socio-demographic characteristics, knowledge about BSE, and practice of BSE. About 32% of the participants reported that they have had family history of cancer and about 20% of the participants reported that they have had family history of breast cancer. The majority of the participants (88.8%) have heard about breast cancer and 78.4% of the participants have heard about BSE. Race, marital status, residency, regular exercise, awareness about breast cancer, belief that breast cancer can be detected early, belief that early detection improves the chance of survival, family history of cancer, family history of breast cancer, awareness about BSE, and belief that BSE is necessary, significantly influenced the practice of BSE among women. Practice of BSE on monthly basis was found to be 47.2% among the study participants.

Dolar Doshi.et.al 2012 conducted a study on knowledge, attitude, and practices regarding breast self-examination among female dental students in Hyderabad city, India. A cross-sectional descriptive questionnaire study was conducted among 203 female dental students at Panineeya institute of dental sciences,

Hyderabad. The study results revealed that the total mean knowledge score was 14.22 ± 8.04 (19.98 ± 3.68), the mean attitude score was 26.45 ± 5.97, for the practice the overall mean score was 12.64 ± 5.92. KAP scores upon correlation revealed a significant correlation between knowledge and attitude scores only ($p<0.05$). The study highlights the need for educational programs to create awareness regarding regular breast cancer screening behavior.

Section D: Studies related to effectiveness of education programme on cancer breast.

Girija Bhaskaran 2014 conducted a study to evaluate effectiveness of structured teaching programme on breast self-examination among industrial women workers between age group of 30-60 years in Chennai. 120 women were selected by non-probability sampling technique and the samples were interviewed by using self administered questionnaire. The results revealed that in pretest majority of the samples were having inadequate knowledge (88%) whereas in posttest majority of samples were gained adequate knowledge(81%), it shows that structured teaching programme was helpful for the women working in various industries in Chennai about breast self- examination.

Abduelmula R. Abduelkarem.et.al.2014 conducted a study to assess the knowledge of breast cancer among female students at the college of pharmacy at the University of Sharjah, UAE, to evaluate the impact of the intervention program designed by the researchers on the student's knowledge on the disease risk factors, screening methods, and their perception towards its treatment. A cross-sectional questionnaire survey of a convenience sample of 166 pharmacy students (n = 110; the 4th year) and (n = 56; the 5th year)) were selected. The 26-item questionnaire covered

the personal information and socio-demographic characteristics,general knowledge on breast cancer, knowledge of breast cancer risk factors, symptoms, and screening tests, perception of management and outcomes ofbreast cancer. The results revealed that a total of 120 pharmacy students from the 4th year (n = 70) and the5th year (n = 50) had completed the survey for the pre-intervention phase of the study. For the post intervention phase of the study, only 63 students from the 4th year and 48 students from the 5th year returned their completed questionnaire, giving a response rate of 90% and 96% respectively. Almost one quarter (59 (25.5)) of the students included in the study reported that they had a history of breast cancer in their family respectively. A high proportion (206 (89.2%)) of the students from both levels showed their interest in participating in activities to promote breast awareness, despite the fact that almost three quarters (161 (70%)) of the students reported that they had never been participated in any previous breast awareness programs. The awareness of students under investigation about self-examination was clearly improved at the end of the study period. Eighty (66.7%) of the students from both levels reported that the breast self-examination is recommended for female “once a month”.

Shubhra Gupta.et.al.2014 conducted a study to assess the effect of a health education program on cancer awareness among college students in India. Knowledge about cancer was assessed before and after a short lecture with the help of predesigned, pre tested, semi structured proforma. A total of 563 students were included in the study. The results revealed that knowledge about cancer was found to be lacking among students as assessed in various spheres such as epidemiology (59.86%), clinical features (22.75%), diagnosis (41.0%)), treatment (41.39%) and preventive measures (63.94%). Statistically significant improvement in knowledge

was found after health education. The percentage of students with poor knowledge was reduced from 43.16% to 18.47% following health education.

Sushmitha Karkada 2013 conducted a study to determine effectiveness of an informational leaflet on knowledge regarding breast cancer among women of reproductive age. The study adapted evaluative approach and the design was one group pretest posttest design. The study was carried among 100 women of reproductive age group (15-45 years) residing at Mattar village, Shirva panchayat, Udupi district, Karnataka, India. Knowledge was assessed using structured knowledge questionnaire on breast cancer. A significant difference between pretest and posttest knowledge scores was found (mean difference 8.58, t=25.83). The study concluded that imparting knowledge regarding breast cancer is useful to maintain healthy life style practices and also promotes one's own as well as others wellbeing.

Sudha Ramalingam.et.al.2012 conducted a study to evaluate the effectiveness of knowledge and attitude about breast cancer and breast self-examination among school teachers in an urban area of Coimbatore. The questionnaire assessed their knowledge and attitude towards breast cancer before and after the intervention. The pre and post test scores obtained were 16.75 and 22.50 respectively showing a 23% increase in the test scores. A paired t test showed that this increase was statistically significant at ($p<.05$) level. This study revealed the effectiveness of health education in improvement of knowledge and attitude towards breast cancer and BSE which is crucial in early diagnosis and treatment.

Division of Global Health 2010 conducted a study on educational intervention to improve breast health knowledge among women in Jordana Stockholm, Sweden. The campaign was conducted in five governorates in Jordan with a total of 105 public group lectures about breast cancer focusing on early detection. The total number of participants were 2,554 women with a median age of 37 years (range: 15-73 years). The pre and posttest was conducted by a questionnaire. The mean knowledge score increased significantly from 10.9 in the pre-test to 13.5 in the post-test ($p<0.001$). Adequate breast health practices were generally low but increased significantly with increasing age and attendance at a previous lecture on breast cancer. Breast health practices were also higher among married women and housewives, and significantly associated with older age and greater breast health knowledge ($p<0.001$). Group educational lectures appeared effective for improving breast health knowledge among Jordanian women.

CHAPTER – III

METHODOLOGY

Research methodology refers to the techniques used to structure a study to gather and analyze information in a systematic fashion.

Polit & Hungler, 2003.

This chapter deals with the research design, setting, population, sample size, criteria for selection of the sample, development and description of tool, pilot study, data collection and plan for data analysis.

RESEARCH APPROACH

The Research approach used for the study is Quantitative Research approach.

RESEARCH DESIGN

The research design used for the study is one group pretest - posttest pre experimental design. It is an empirical study used to estimate the impact of an intervention on its target population.

The research design is represented as follows

O1 X O2

O1 - Pretest to assess the levels of knowledge, attitude and expressed practices regarding cancer breast among women by using a structured interview schedule, likert scale and checklist.

X - Multimedia education on cancer breast

O2 - Post test to determine the levels of knowledge, attitude and expressed practices regarding cancer breast by using the same structured interview schedule, likert scale and checklist after multimedia education.

VARIABLES

Independent variable – Multimedia education on cancer breast

Dependent variable – levels of knowledge, attitude and expressed practices regarding Cancer breast

SETTING OF THE STUDY

The study was conducted in Kaspa urban area at Vellore district, TamilNadu. The selection of this setting for the present study is on the basis of geographical proximity, feasibility of the study and sample availability.

POPULATION

The population of this study includes women who are residing at Kaspa urban area, Vellore.

SAMPLE

The samples of the present study are women between the age group of 30-50 years who residing at Kaspa urban area, Vellore.

SAMPLING TECHNIQUE

Systematic sampling technique was used for the study.

SAMPLE SIZE

60 samples were selected for the study based on the inclusion and exclusion criteria.

CRITERIA FOR SAMPLE SELECTION

Inclusion Criteria

Women who,

- are in the age group 30-50 years.
- understand and/or speak Tamil.
- are available at the time of data collection
- are willing to participate in the study.

Exclusion criteria

Women who,

- has undergone screening within 6 months.
- are diagnosed with and treated for breast cancer.
- with visual and hearing impairment.

DEVELOPMENT OF THE TOOL

Structured interview schedule for knowledge, 5 point Likert Scale for attitude and checklist for expressed practices were developed and content validated by the experts.

DESCRIPTION OF TOOL

The tool for assessing the levels of knowledge, attitude and expressed practices regarding cancer breast among women is divided into four sections.

SECTION A: It consists of demographic variables such as age, education, religion, occupation, family monthly income, dietary habits, family history, previous knowledge, age at menarche, marital status, age at marriage, parity, duration of breast feeding for the last child, history of oral contraceptive intake, age at menopause.

SECTION B: It consists of 25 knowledge questions related to causes and risk factors, signs and symptoms, screening test, and prevention of cancer breast.

SECTION C: It consists of 12 items of attitude on cancer breast of which 5 items are positively and 7 items are negatively worded.

SECTION D: It consists of 10 items of expressed practices on cancer breast.

SCORE INTERPRETATION

- The awareness of breast cancer is measured in terms of knowledge score. Each correct response is given a score of one and a wrong answer score of zero. The maximum score is 25, to interpret levels of knowledge the scores are distributed as follows,

  <50% - Inadequate knowledge.

  50-74.9% - Moderately adequate knowledge.

  75% and above - Adequate knowledge.

- The attitude of cancer breast is measured by 5 point Likert scale and the levels of attitude scores are interpreted as follows.

  <50% - unfavourable attitude.

  50-74.9% - moderately favourable attitude.

  75% and above – favourable attitude.

- The Expressed practices of cancer breast are measured by checklist and the scores are interpreted as follows.

  <50% - poor expressed practices.

  50-74.9% - fair expressed practices.

  75% and above – good expressed practices.

VALIDITY AND RELIABILITY

To determine the content validity, the tool was submitted to the 5 experts. After obtaining valuable suggestions, necessary modifications were made accordingly. The reliability of the tool was established by test and retest method.

The reliability of knowledge scale r = 0.99.

The reliability of attitude scale r = 0.99.

The reliability of expressed practices scale r = 0.96.

PILOT STUDY

A pilot study was conducted to test the reliability, feasibility and practicability of the study. Pilot study was conducted in Kaspa urban health post. Six women who met the inclusion criteria were selected by using systematic sampling technique. A pretest was conducted followed by multimedia education was given by using breast model, LCD and posters on cancer breast. After 7 days posttest was conducted by using the same structured interview schedule, likert scale and checklist to the same samples and the results were analyzed. The pilot study revealed that the study was feasible for main study.

DATA COLLECTION PROCEDURE

The period of data collection was about 6 weeks. In order to collect the data for the study, a formal permission was obtained from the Deputy Director, Vellore. The 60 women who met the inclusion criteria were selected for the study by systematic sampling technique. On the first day, the researcher introduced herself to the samples and study purpose was explained to them. Doubts were clarified and researcher assured them about the confidentiality of the information obtained from them. The women were interviewed by using structured interview schedule, likert

scale and checklist then multimedia education was given regarding cancer breast by using breast model, LCD and posters. After seven days posttest was conducted by using the same interview schedule, likert scale and checklist.

PLAN FOR DATA ANALYSIS

The collected data were coded, tabulated and analyzed by using descriptive and inferential statistics.

Descriptive statistics:

- Frequency and percentage distribution is used to analyze the selected demographic variables.
- Mean and standard deviation is used to assess the levels of knowledge, attitude and expressed practices regarding cancer breast.

Inferential statistics:

- Paired 't' test was used to assess the effectiveness of multimedia education on levels of knowledge, attitude, expressed practices and screening regarding cancer breast among women.
- 'Chi'–Square was used to associate the posttest levels of knowledge, attitude and expressed practices with selected demographic variables.

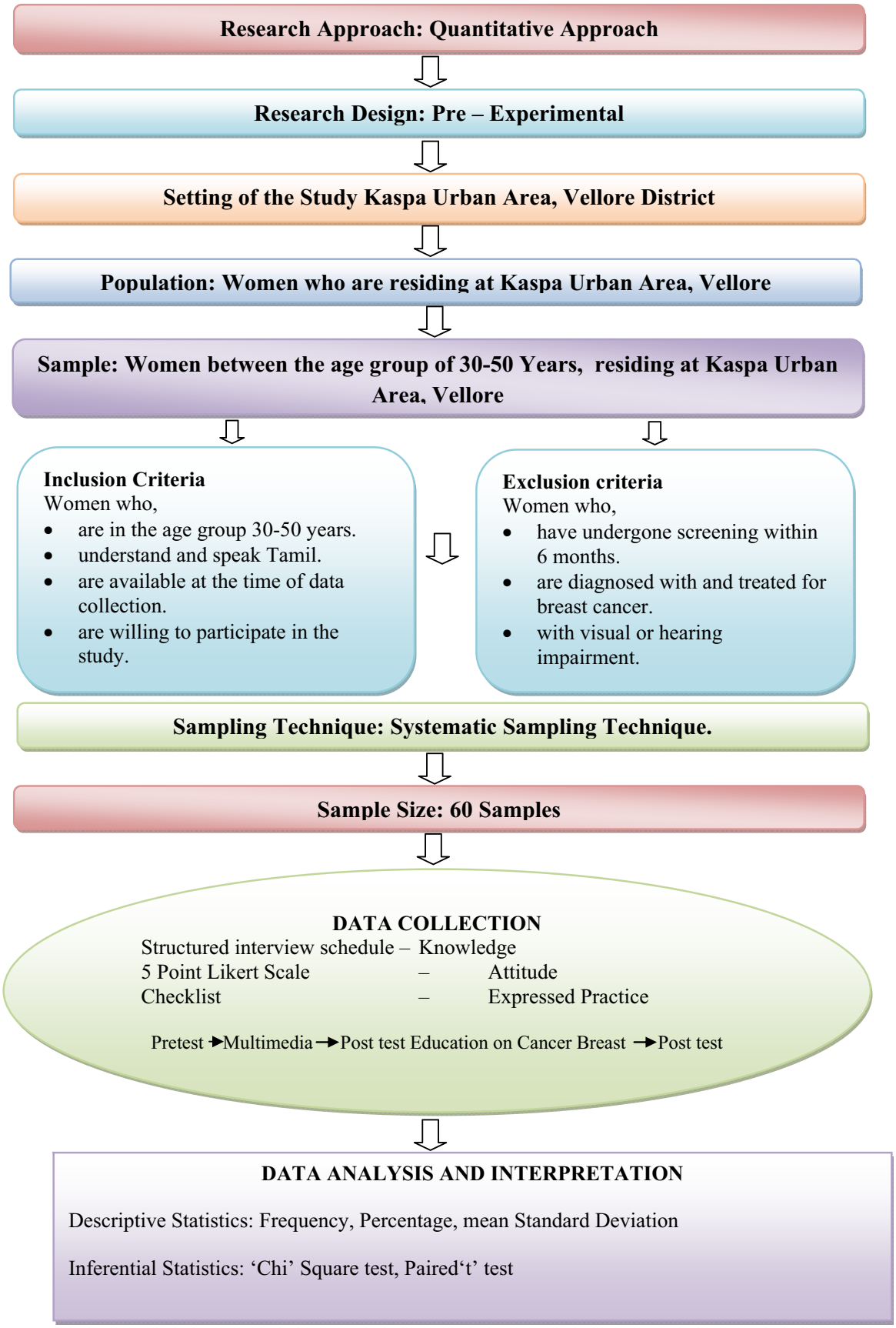


Figure 2 – Schematic representation of methodology.

CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with the analysis and interpretation of data collected from 60 samples to assess the knowledge, attitude and expressed practices on cancer breast among women in Kaspa urban area, Vellore.

Analysis and interpretation of the data were based on collection of the data through systemic sampling technique. Descriptive and inferential statistics were used for the analysis of the data.

As per the objectives of the study, the interpretation has been organized and tabulated as follows:

Section I: Frequency and percentage distribution of demographic variables

Section II: Data on pre and posttest levels of knowledge, attitude and expressed practices regarding cancer breast among women.

Section III: Data on association between posttest levels of knowledge, attitude, expressed practices of women and selected demographic variables.

SECTION I

Frequency and percentage distribution of demographic variables

Table 1: Frequency and percentage distribution of women according to the age group.

n=60

AGE IN YEARS	FREQUENCY	PERCENTAGE (%)
30-35	09	15.0
36-40	31	51.7
41-45	17	28.3
46-50	03	5.0

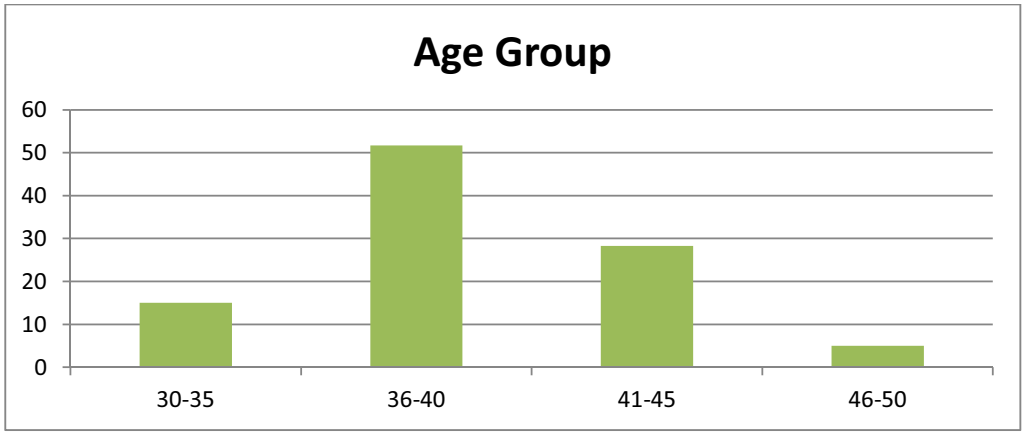


Fig 3 - Frequency and percentage distribution of women according to the age group.

Table 1 and figure 3 represents that majority of the women 31 (51.7%) were in the age group of 36-40 years whereas 17 (28.31%) were in the age group of 41-45 years, 9 (15%) were in the age group of 30-35 years and only 3(5%) were in the group of 46 – 50 years.

Table.2 Frequency and percentage distribution of women according to education

n=60

EDUCATION	FREQUENCY	PERCENTAGE (%)
Illiterate	25	41.7
Primary	22	36.7
High school	13	21.6
Higher secondary	-	-
Degree and above	-	-

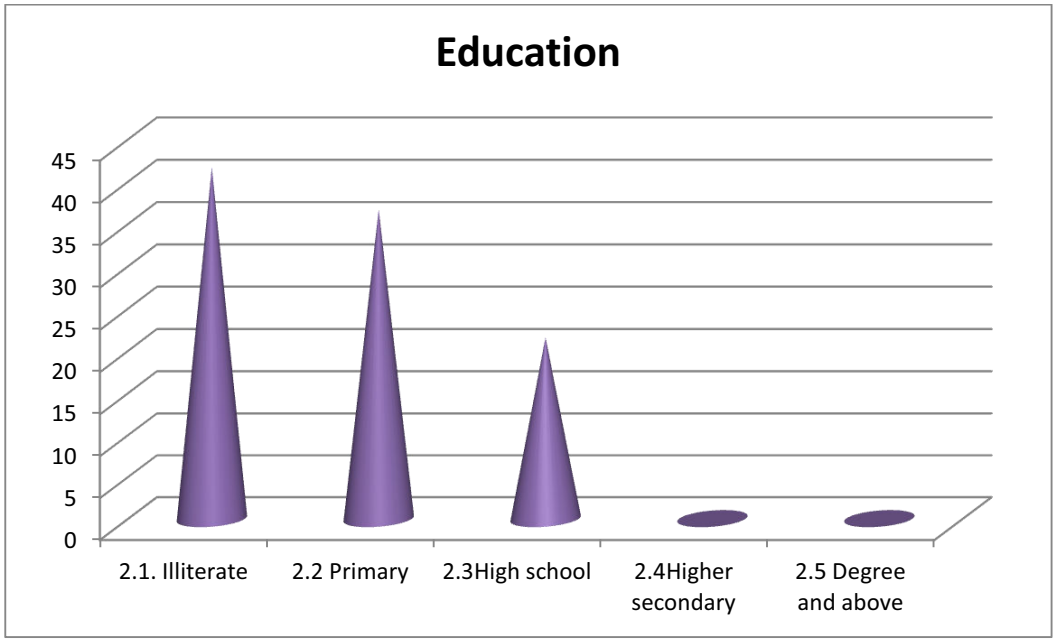


Fig 4 - Frequency and percentage distribution of women according to education.

Table 2 figure 4 depicts that many of the women 25 (41.7%) were illiterates, 22 (36.7%) studied upto primary education, 13(21.6%) studied up to high school education, none of them had Higher Secondary, Degree and above education.

Table.3 Frequency and percentage distribution of women according to religion

n=60

RELIGION	FREQUENCY	PERCENTAGE (%)
Hindu	27	45.0
Muslim	33	55.0
Christian	-	-
others	-	-

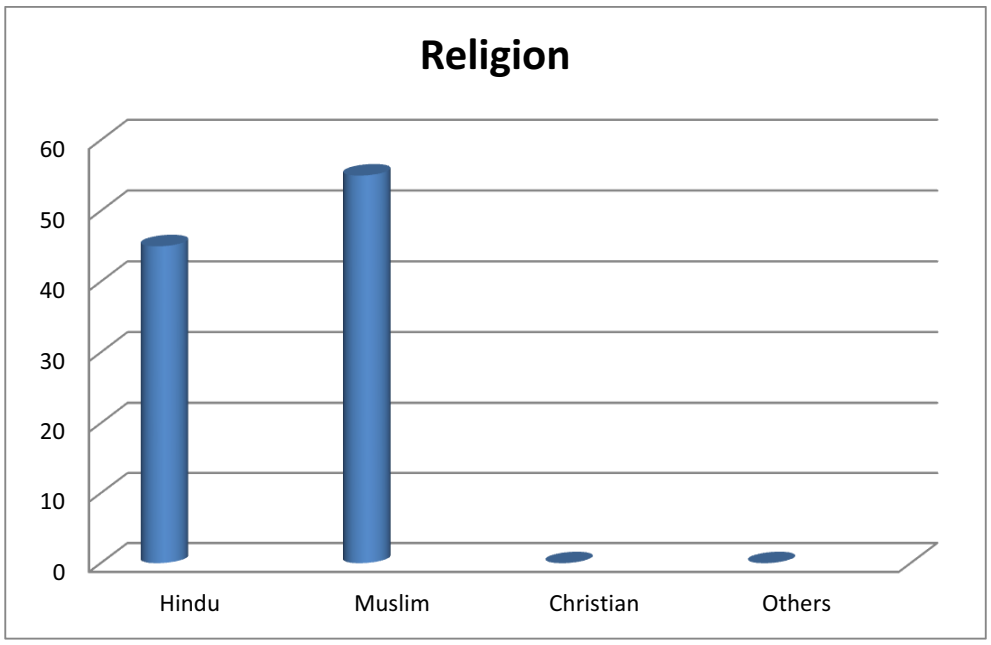


Fig 5 - Frequency and percentage distribution of women according to religion

Table 3 and figure 5 depicts that majority of the women 33 (55%) were Muslims, 27 (45%) were Hindus and nobody belong to Christian and other religions.

Table 4. Frequency and percentage distribution of women according to occupation

n=60

OCCUPATION	FREQUENCY	PERCENTAGE (%)
Home maker	56	93.3
Self- employed	-	-
Skilled labour	-	-
Unskilled labour	4	6.7
Professionals	-	-
Others	-	-

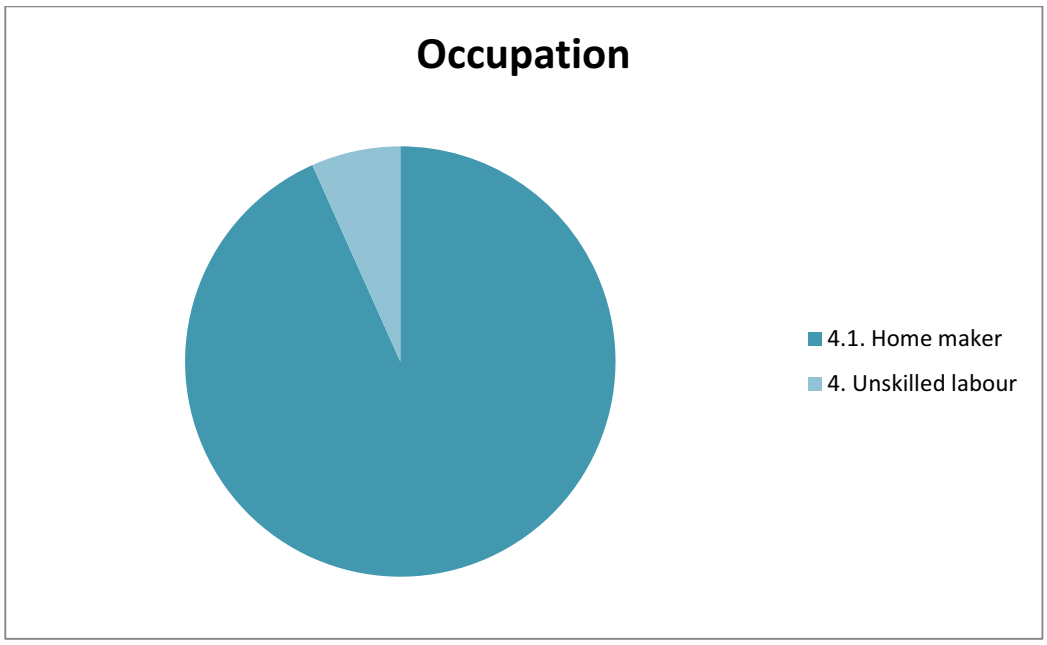


Fig 6 - Frequency and percentage distribution of women according to occupation

Table 4 figure 6 shows that majority of the women 56 (93.3%) were home makers, only 4 (6.7%) were unskilled labours, no one belongs to skilled labour, self-employed, or professionals.

Table 5. Frequency and percentage distribution of women according to family monthly income.

n=60

FAMILY MONTHLY INCOME ₹	FREQUENCY	PERCENTAGE (%)
Up to 4,000/-	41	68.4
4,001 – .6,000/-	14	23.3
6,001-8,000/-	5	8.3
8001-10,000/-	-	-
Above 10,000/-	-	-

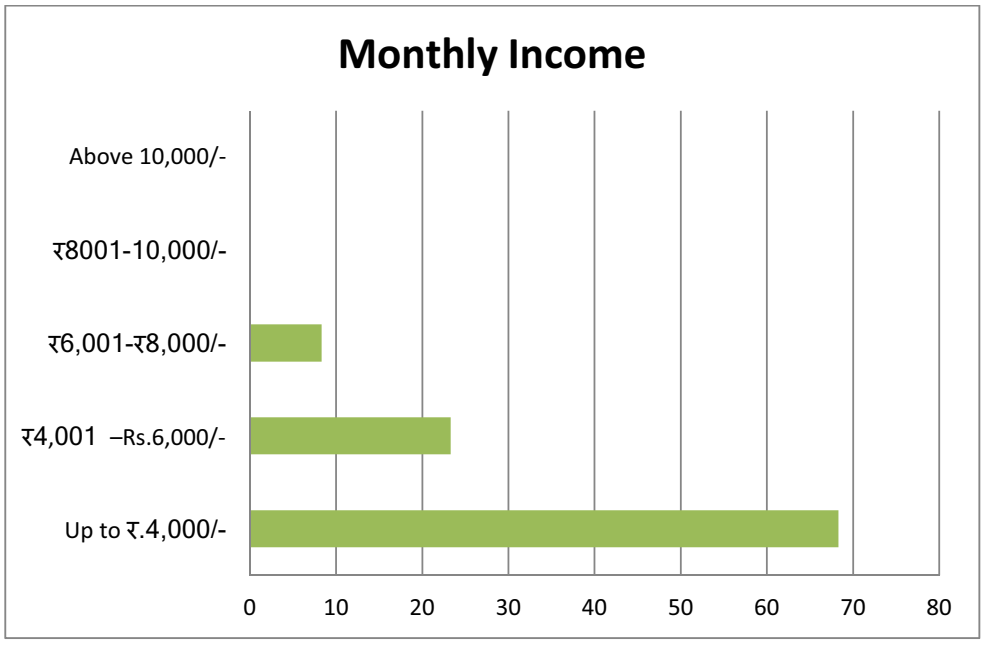


Fig 7 - Frequency and percentage distribution of women according to family monthly income.

Table 5 and figure 7 depicts that majority of the women 41 (68.4%) had the monthly income upto ₹ 4000/-, 14(23.3%) had the monthly income of ₹ 4001-₹ 6000/- and minimum number of women 5(8.3%) had the monthly income of ₹ 6001-₹ 8000. None of them had the monthly income of above ₹ 8001.

Table 6. Frequency and percentage distribution of women according to dietary habits.

n=60

DIETARY HABITS	FREQUENCY	PERCENTAGE (%)
Pure vegetarian	-	-
Non-vegetarian	59	98.3
Ovo Vegetarian	01	1.7

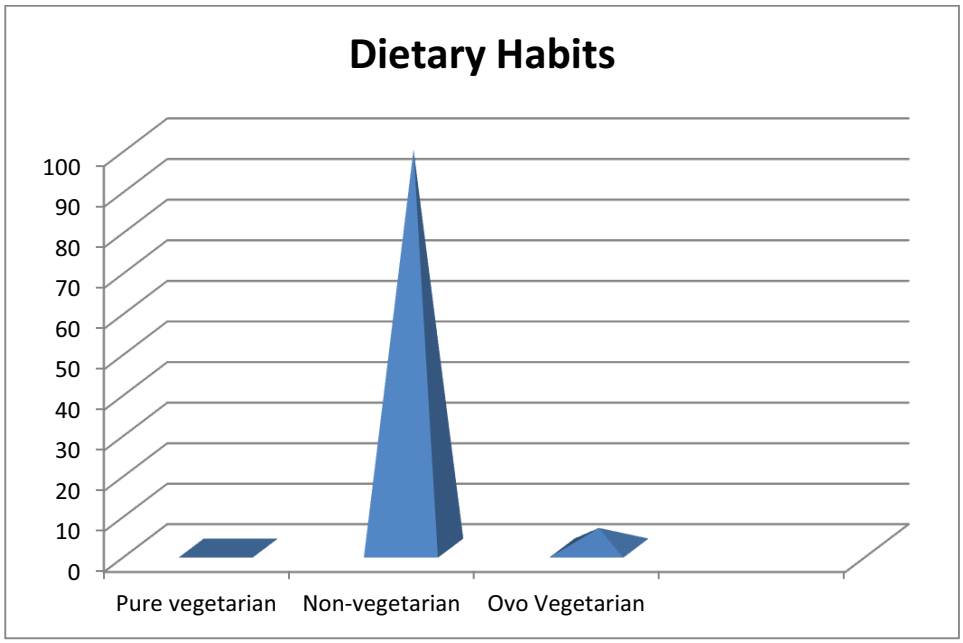


Fig 8 - Frequency and percentage distribution of women according to dietary habits.

Table 6 and Figure 8 represents that majority of the women 59(98.3%) were non - vegetarians and only one (1.7%) was a Ovo-vegetarian, no one were pure vegetarians.

Table 7. Frequency and percentage distribution of women according to family history of breast cancer.

n=60

FAMILY HISTORY OF BREAST CANCER	FREQUENCY	PERCENTAGE (%)
Yes	01	1.7
No	59	98.3

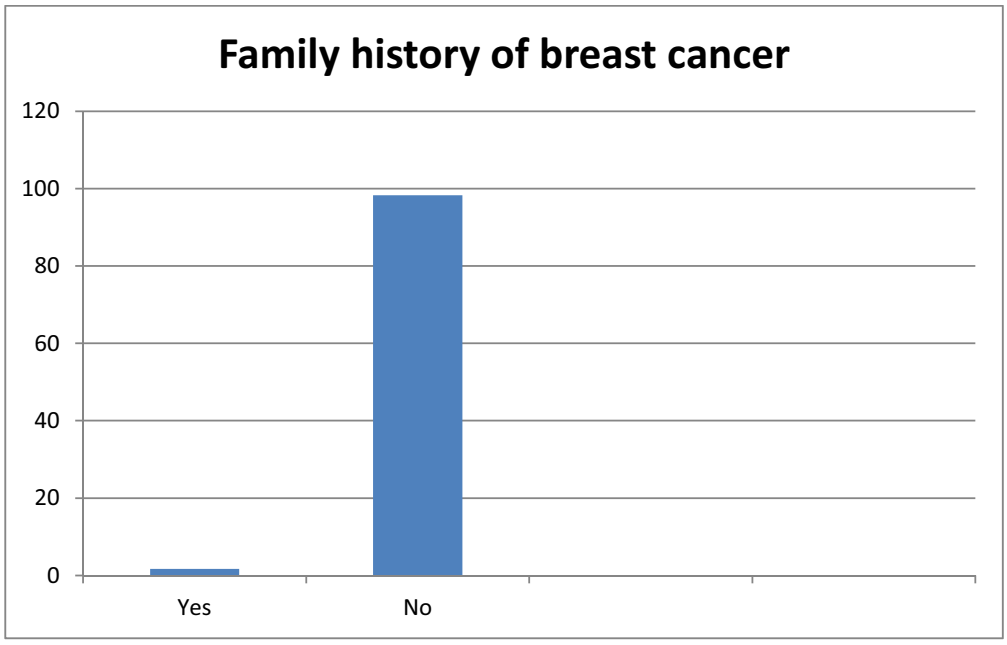


Fig 9- Frequency and percentage distribution of women according to family history of breast cancer.

Table 7 and figure 9 represents that majority 59 (98.3%) women were not having the family history of breast cancer, and only one (1.7%) had the family history of breast cancer. The grandmother of the sample had history of cancer breast at the age of 75 years.

Table 8. Frequency and percentage distribution of women according to previous knowledge of breast cancer.

n=60

PREVIOUS KNOWLEDGE OF BREAST CANCER	FREQUENCY	PERCENTAGE (%)
Yes	25	41.7
No	35	58.3

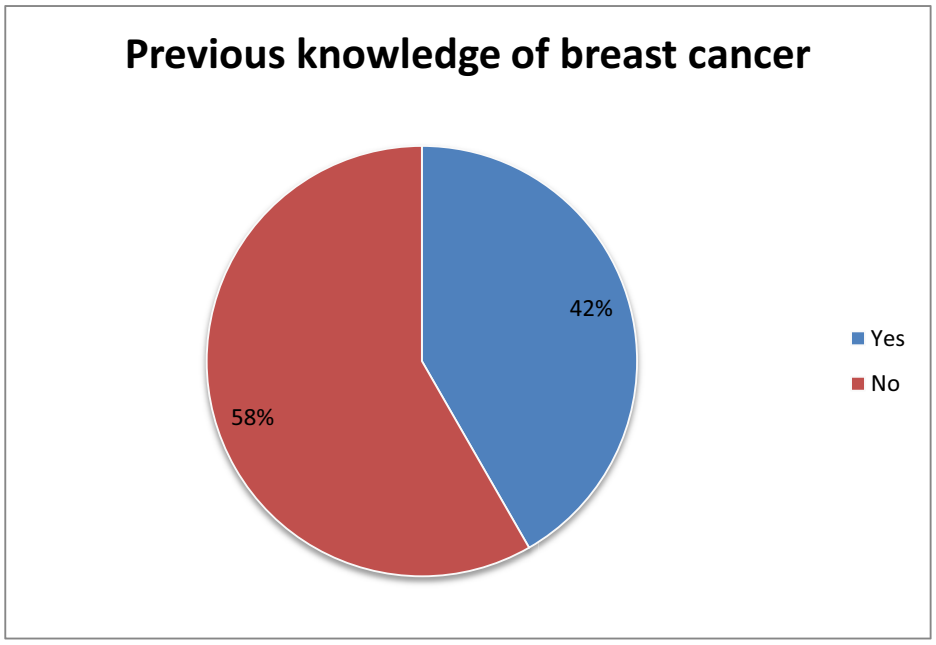


Fig 10 - Frequency and percentage distribution of women according to previous knowledge of breast cancer

Table 8 and figure 10 shows that majority of the women 35(58.3%) were not having the previous knowledge on breast cancer whereas 25(41.7%) had previous knowledge on breast cancer.

Table 8.1. Frequency and percentage distribution of women according to sources of information, on previous knowledge of breast cancer.

n=25

SOURCES OF INFORMATION ON BREAST CANCER	FREQUENCY	PERCENTAGE(%)
Health professionals	7	11.6
Mass media	13	21.6
Family members	-	-
Friends & relatives	5	8.3
Co-workers and neighbors	-	-

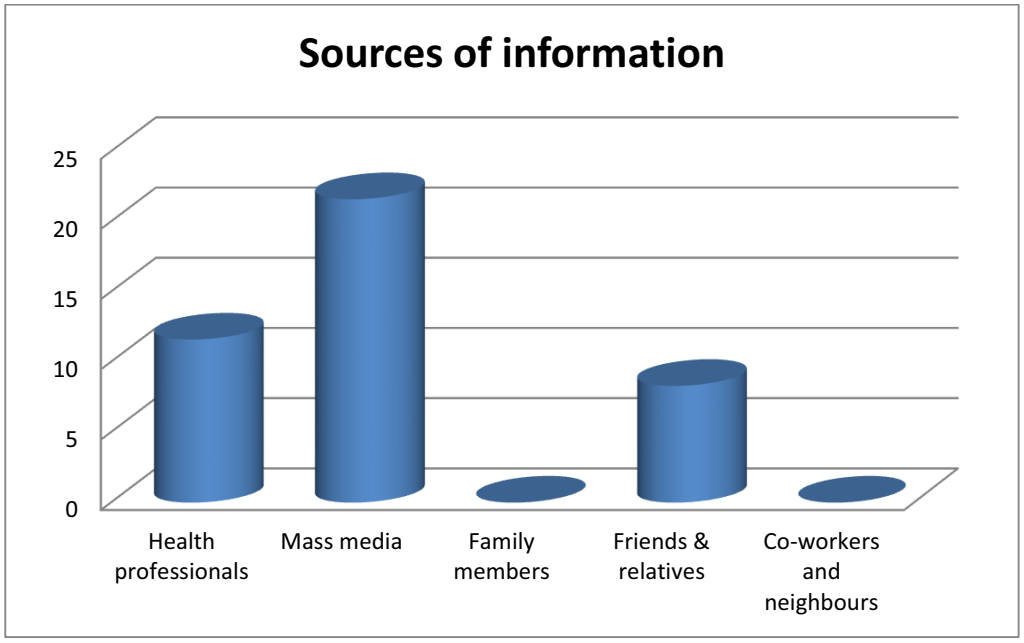


Fig 11 - Frequency and percentage distribution of women according to sources of information, on previous knowledge of breast cancer.

Table 8.1and figure 11 depicts that majority of the women 13 (21.6%) received information regarding breast cancer through mass media whereas 7(11.6%) got information through health professionals and minimum of 5(8.3%) had information through friends and relatives. No one had previous information regarding breast cancer through family members, co-workers or neighbors.

Table 9. Frequency and percentage distribution of women according to age at menarche

n=60

AGE AT MENARCHE	FREQUENCY	PERCENTAGE(%)
Below 10	-	-
10-11	8	13.3
12-13	40	66.7
14-15	10	16.7
Above 15	2	3.3

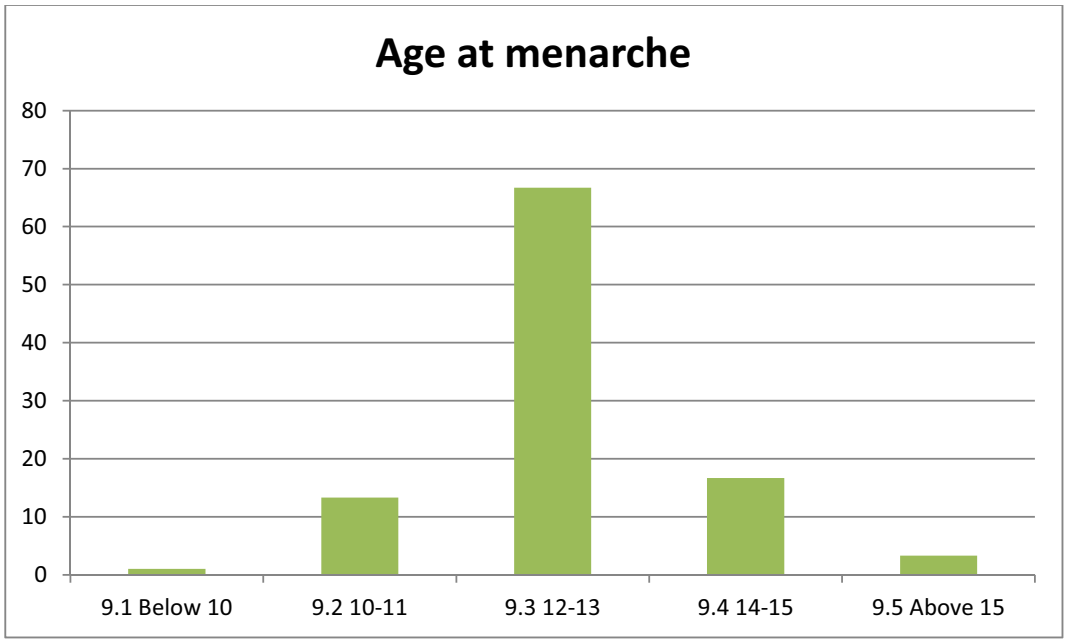


Fig 12 - Frequency and percentage distribution of women according to age at menarche

Table 9 and figure 12 represents that majority of the women 40(66.7%) attained menarche between the age of 12-13 years, 10(16.7%) attained menarche at the age of 14-15 years, 8(13.3%) attained menarche at the age of 10-11 years, minimum of 2(3.3%) attained menarche above 15 years, and no one attained menarche below 10 years.

Table 10. Frequency and percentage distribution of women according to the marital status.

n=60

MARITAL STATUS	FREQUENCY	PERCENTAGE (%)
Unmarried	-	-
Married	40	66.7
Widowed	20	33.3
Divorced	-	-
others	-	-

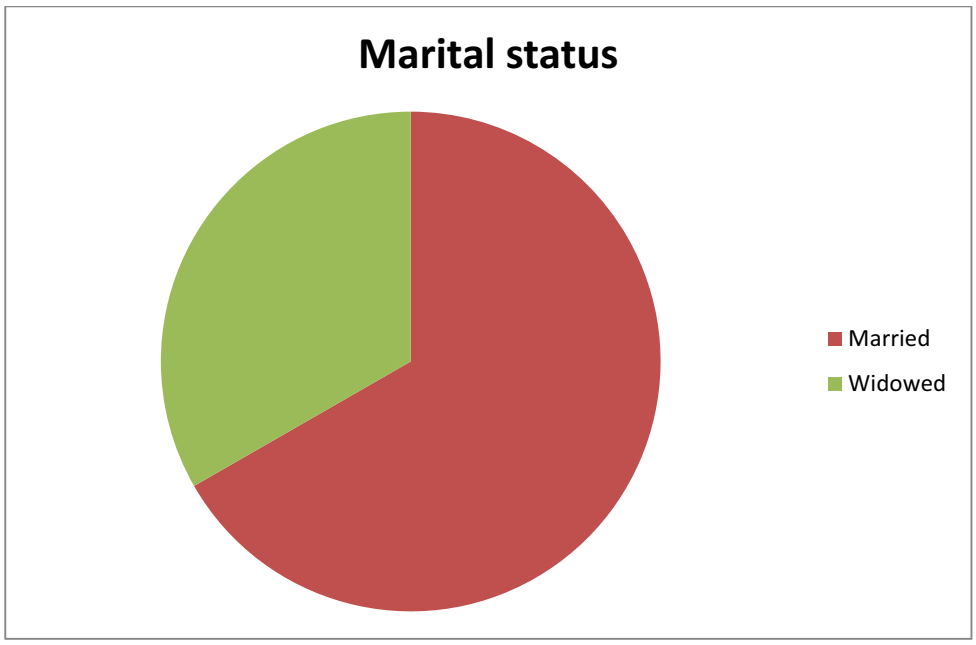


Fig 13 - Frequency and percentage distribution of women according to the marital status.

Table 10 and figure 13 depicts that majority of the women 40(66.7%) were married whereas 20 (33.3%) were widowed. None of them were unmarried or divorced.

Table 11. Frequency and percentage distribution of women according to age at marriage.

n=60

AGE AT MARRIAGE	FREQUENCY	PERCENTAGE (%)
Below 18	18	30
18-22	32	53.3
23-26	10	16.7
27-30	-	-
Above 30	-	-

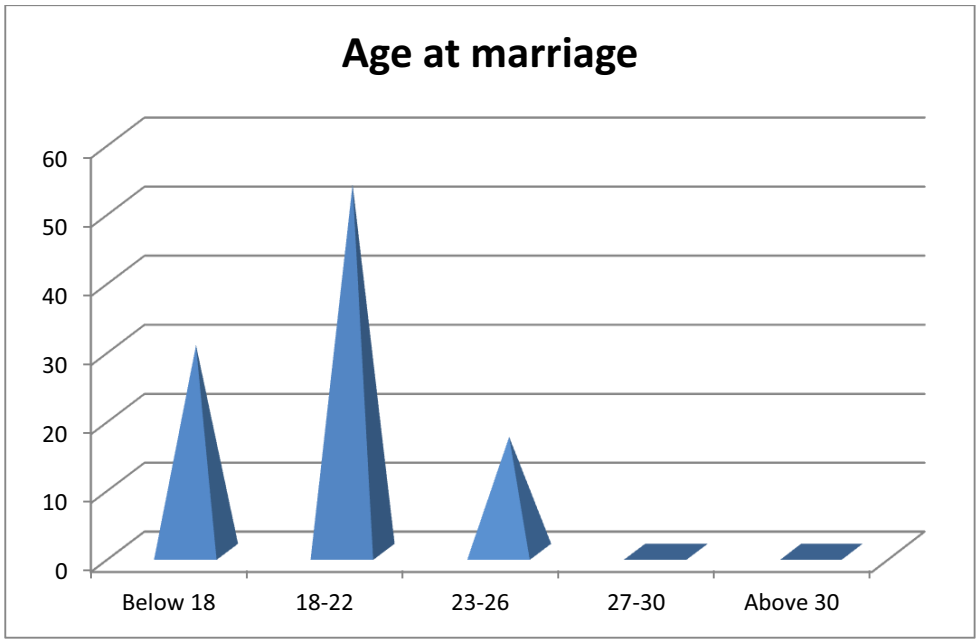


Fig 14 - Frequency and percentage distribution of women according to age at marriage

Table 11 and figure 14 represents that majority of the women 32(53.3%) were married at the age of 18-22 years whereas 18(30%) were married below 18 years, minimum of 10 (16.7%) were married at the age of 23-26 years, and none of the women were married above 26 years.

Table 12. Frequency and percentage distribution of women according to parity.

n=60

PARITY	FREQUENCY	PERCENTAGE (%)
Nulliparous	5	8.3
One	-	-
Two	13	21.7
Three & above	42	70.0

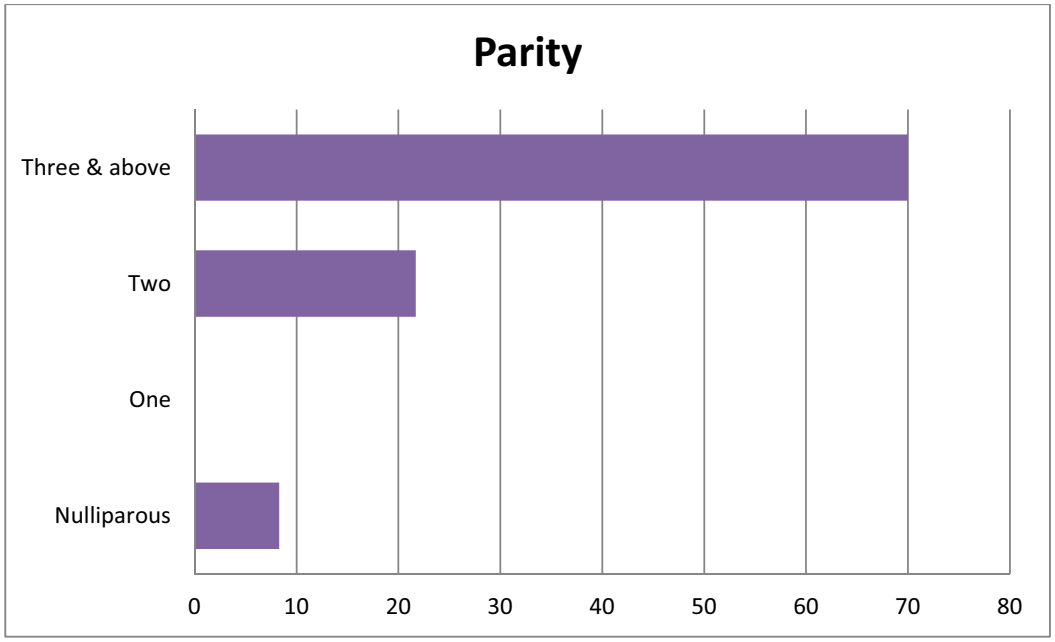


Fig 15 - Frequency and percentage distribution of women according to parity.

Table 12 and figure 15 depicts that majority of the women 42 (70%) had three or more children and 13(21.7%) women had 2 children, minimum of 5(8.3%) women were nulliparous and no one had one child.

Table.13. Frequency and percentage distribution of women according to duration of breast feeding for the last child.

n=60

DURATION OF BREAST FEEDING FOR THE LAST CHILD.	FREQUENCY	PERCENTAGE (%)
No breast feeding	05	8.3
Up to 6 months	12	20.0
Up to 1 year	18	30.0
More than 1 year	25	41.7

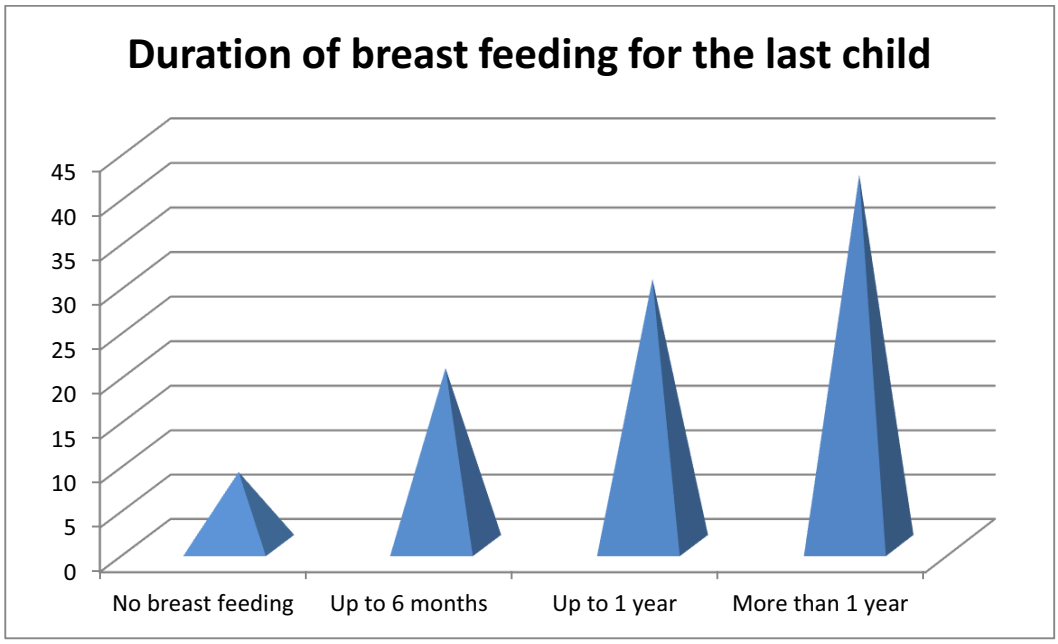


Fig 16 - Frequency and percentage distribution of women according to duration of breast feeding for the last child

Table 13 and figure 16 represents that majority of the women 25(41.7%) breastfed their last child more than 1 year, 18 (30%) women breast fed their child up to 1year, 12 (20%) women breastfed their child up to 6 months, 5(8.3%) women were nulliparous and had no breastfeeding experience.

Table 14. Frequency and percentage distribution of women according to the history of oral contraceptive intake.

n=60

HISTORY OF ORAL CONTRACEPTIVE INTAKE.	FREQUENCY	PERCENTAGE (%)
Yes	-	-
No	60	100

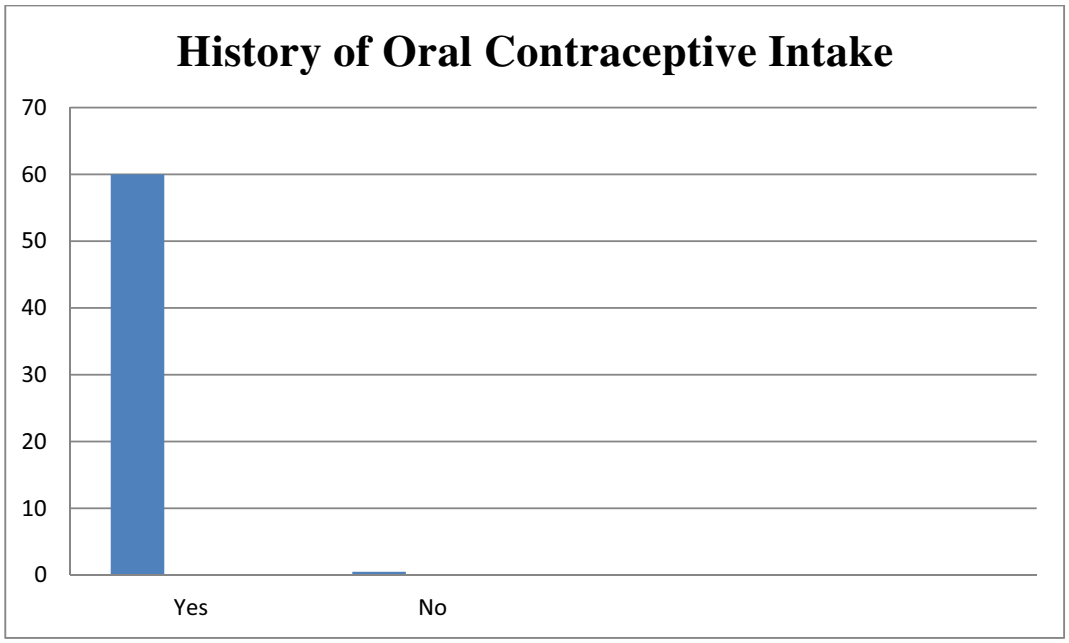


Fig 17 - Frequency and percentage distribution of women according to the history of oral contraceptive intake.

Table 14 & figure 17 depicts that none of the women had the history of oral contraceptives intake.

Table.15. Frequency and percentage distribution of women according to the attainment of menopause.

n=60

ATTAINED MENOPAUSE	FREQUENCY	PERCENTAGE (%)
Yes	18	30
No	42	70

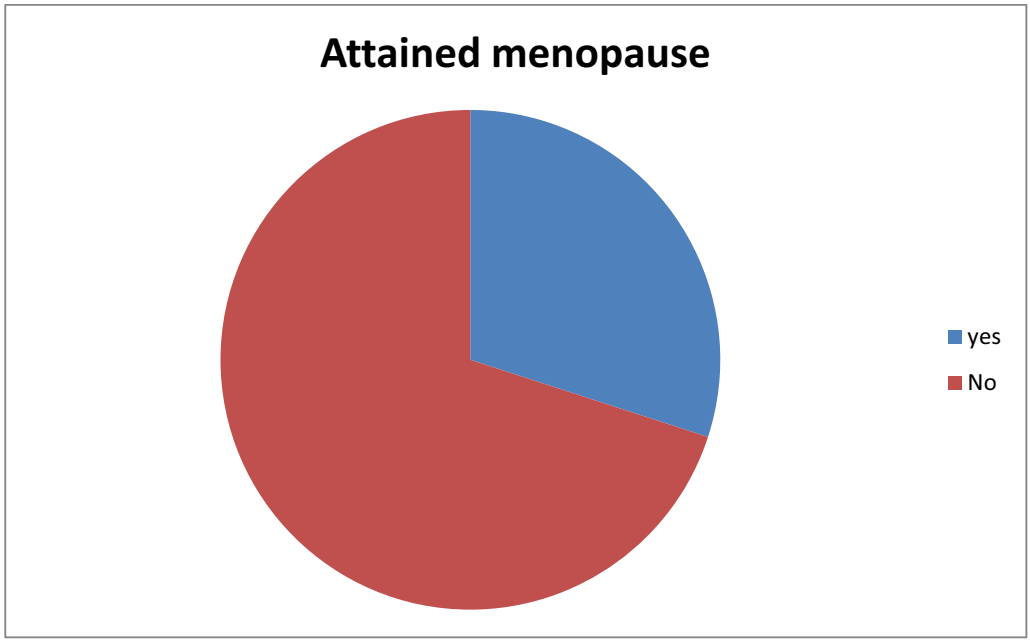


Fig 18- Frequency and percentage distribution of women according to the attainment of menopause.

Table 15 and figure 18 depicts that majority of the women 42 (70%) not attained menopause whereas 18 (30%) women attained menopause.

Table 15.1. Frequency and percentage distribution of women according to the age of attainment of menopause.

n=18

AGE OF MENOPAUSE	FREQUENCY	PERCENTAGE (%)
Below 40 years	1	1.7
40-42 years	5	8.3
43-45 years	9	15.0
Above 45 years	3	5.0

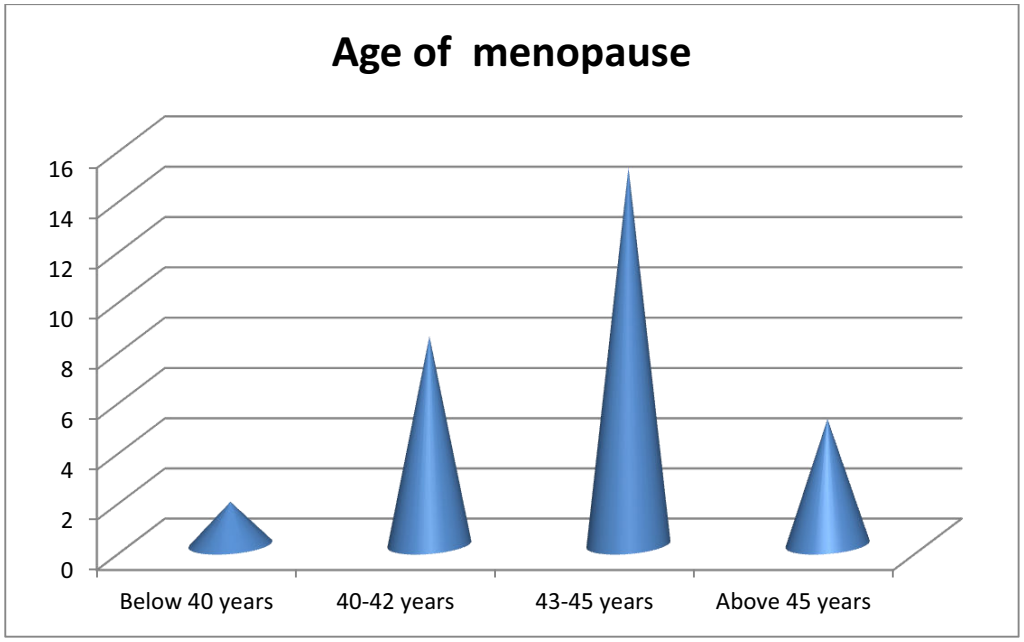


Fig 19 - Frequency and percentage distribution of women according to the age of attainment of menopause

Table 15.1 and figure 19 represents that many of the women 9 (15%) attained menopause at the age of 43-45 years, 5(8.3%) women attained menopause at the age of 40-42 years, 3 (5%) attained menopause above 45 years and only one woman attained menopause below 40 years.

SECTION II

Analysis of pre and posttest levels of knowledge, attitude and expressed practices regarding cancer breast among women.

Table 16. Frequency and percentage distribution of pre and posttest levels of knowledge regarding cancer breast

n=60

LEVELS OF KNOWLEDGE	PRETEST		POSTTEST	
	Frequency	%	Frequency	%
Inadequate knowledge (<50%)	60	100	-	-
Moderately adequate knowledge (50%-74.9%)	-	-	13	21.7
Adequate knowledge (75% and above)	-	-	47	78.3
Total	60	100	60	100

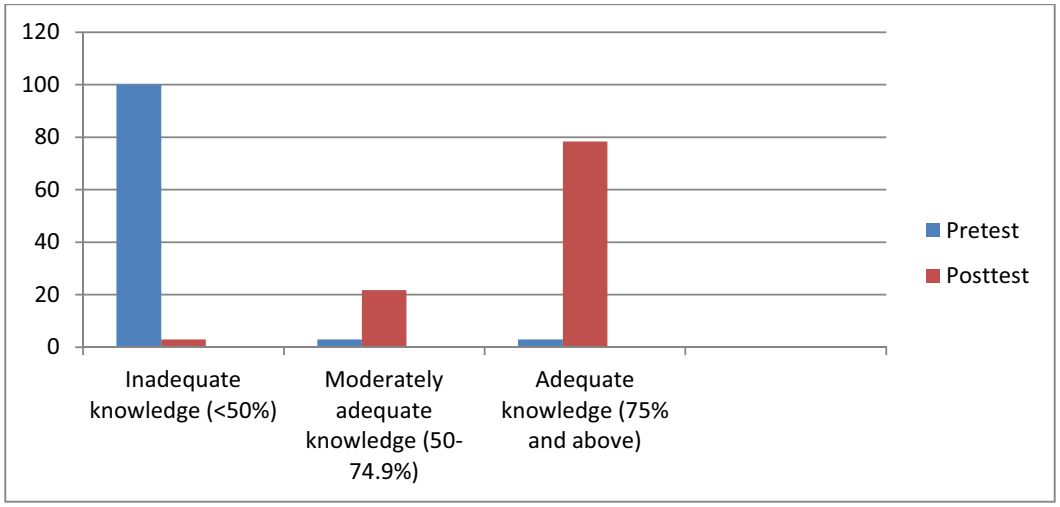


Fig 20- Frequency and percentage distribution of pre and posttest levels of knowledge regarding cancer breast

Table 16 and fig 20 represents that in the pretest 60 (100%) women had inadequate knowledge regarding cancer breast, none of them had moderately adequate or adequate knowledge. In the post test 47 (78.3%) of the women had adequate knowledge, 13(21.7%) had moderately adequate knowledge and no one had inadequate knowledge.

Table 17. Frequency and percentage distribution of pre and posttest levels of attitude regarding cancer breast

n= 60

Levels Of Attitude	Pretest		Posttest	
	Frequency	%	Frequency	%
Unfavourable attitude (<50%)	60	100	-	-
Moderately favourable attitude (50%-74.9%)	-	-	15	25
Favourable attitude (75% and above)	-	-	45	75
Total	60	100	60	100

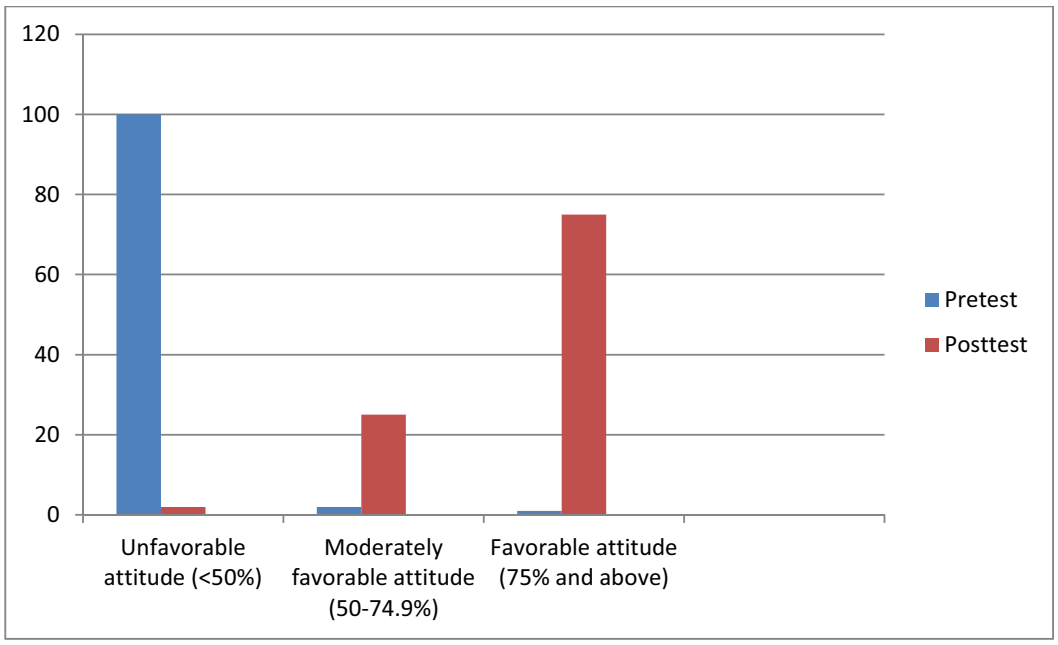


Fig 21 - Frequency and percentage of pre and posttest levels of attitude regarding cancer breast

Table 17 and fig 21 depicts that in pre test all the samples 60 (100%) had unfavourable attitude regarding cancer breast, no one had moderately favourable or favourable attitude. In post test 45 (75%) women had favourable attitude, 15 (25%) women had moderately favourable attitude, and no one had unfavourable attitude.

Table 18. Frequency and percentage distribution of pre and posttest levels of expressed practices regarding cancer breast

n=60

LEVELS OF EXPRESSED PRACTICES	PRETEST		POSTTEST	
	Frequency	%	Frequency	%
Poor expressed practices (<50%)	60	100	-	-
Fair expressed practices (50%-74.9%)	-	-	15	25
Good expressed practices (75% and above)	-	-	45	75
Total	60	100	60	100

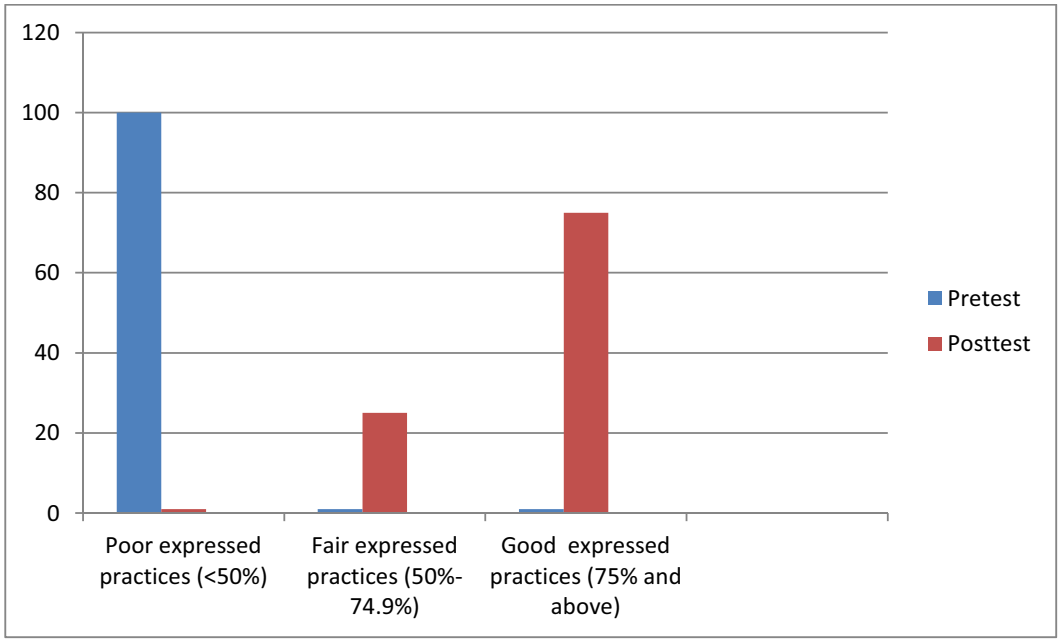


Fig 22 - Frequency and percentage distribution of pre and posttest levels of expressed practices regarding cancer breast

Table 18 and fig 22 represents that in pre test all the women 60 (100%) had poor expressed practices, no one had fair or good expressed practices. In the post test 45 (75%) women had good expressed practices and 15 (25%) women had fair expressed practices and no one had poor expressed practices.

Table. 19. Mean, standard deviation and paired 't' value of pre and posttest levels of knowledge regarding cancer breast among women.

n=60

Knowledge	Mean	SD	MD	't' value
Pretest	6.72	2.74	12.65	40.81*
Posttest	19.47	2.43		

*** Statistically significant ($p < 0.05$)**

Table 19 represents that the pretest knowledge mean score was 6.72 ± 2.74 and the posttest mean score was 19.47 ± 2.43. The mean difference of pre and posttest knowledge was 12.65. The calculated paired 't' test value 40.81 was higher than the table value 2 which is significant at $p<0.05$ level. It is interpreted that there was significant increase in the level of knowledge of women regarding cancer breast after the multimedia education. Hence hypothesis 1 is accepted.

Table. 20. Mean, standard deviation and paired‘t’ value of pre and posttest levels of attitude regarding cancer breast among women.

n=60

Attitude	Mean	SD	MD	‘t’ value
Pretest	2.25	0.8	40.9	23.6*
Posttest	8.12	1.01		

***Statistically significant (p<0.05)**

Table 20 represents that the pretest attitude mean score was 2.25 ±0.8 and the post test mean score was 8.12 ±1.01. The mean difference of pre and post test was 40.9. The calculated paired ‘t’ test value 23.6 was higher than the table value 2 which is significant at $p<0.05$ level. It is interpreted that there was significant increase in favourable attitude level of women after the multimedia education. Hence hypothesis 1 is accepted.

Table. 21. Mean, standard deviation and paired 't' value of pre and posttest levels of expressed practices regarding cancer breast among women.

n=60

Expressed practice	Mean	SD	MD	't' value
Pretest	22.3	4.11	18.63	21.4 *
Posttest	40.9	7.23		

***Statistically Significant (P<0.05)**

Table 21 represents that the pre test expressed practices mean score was 22.3±4.11 and the posttest mean score was 40.9±7.23. The mean difference of pre and posttest was 18.63. The calculated paired't' test value 21.4 was higher than the table value 2, which is significant at $p<0.05$ level. It is interpreted that there was significant increase in the level of expressed practices among women after the multimedia education.

SECTION – III

Table 22 Analysis of association between pre and post test levels of knowledge and selected demographic variable.

n=60

Demographic Variables	Knowledge Level of Women								'Chi'Square x^2 Value
	Sample (n)		Inadequate		Moderately adequate		Adequate		
	No	%	No	%	No	%	No	%	
Age in Years									
30-35	09	15.0	-	-	1	11.1	8	88.9	3.03
36-40	31	51.7	-	-	9	2.9	22	71	df=3
41-45	17	28.3	-	-	3	11.7	14	88.3	NS
46-50	03	5.0	-	-	2	33.3	01	66.7	
Education									
Illiterate	25	41.7	-	-	7	28	18	72	
Primary	22	36.7	-	-	3	4.5	19	95.5	6.54*
High School	13	21.6	-	-	5	38.5	08	61.5	df=2
Higher Secondary	-	-	-	-	-		-		S
Degree and above	-		-	-	-		-		
Religion									
Hindu	27	45.0			2	7.4	25	92.6	5.87*
Muslim					11	33.3	22	66.7	df=1
Christian	33	55.0							S
Others	-	-							
Occupation									
Home maker	56	93.3			11	19.6	45	80.4	
Self Employed	-	-							2.02
Skilled Labour	-	-							df=1
Unskilled labour	4	6.7			2	50	2	50	NS
Professionals									
Others									
Family Monthly Income (INR ₹)									
Up to 4000/-	41	68.4			9	22	32	78	0.11
4001/- to 6000/-	14	23.3			3	21.4	11	78.6	df=2
6001/- to 8000/-	5	8.3			1	20	4	80	NS
8001/- to 10,000/-	-	-							
Above 10,000/-									
Dietary Habits									
Pure Vegetarian	-	-							4.61*
Non – Vegetarian	59	98.3			12	20.3	47	79.7	df=1
Ovo Vegetarian	01	1.7			10	100	0	-	S

Demographic Variables	Knowledge Level of Women								'Chi'Square x^2 Value
	Sample (n)		Inadequate		Moderately adequate		Adequate		
	No	%	No	%	No	%	No	%	
Family History of Breast Cancer									
a. Mother									
b. Maternal aunty									0.000
c. Sister									NS
d. Grand Mother	1	1.7			1	100			
e. Others									
Sources of Information on previous knowledge on breast cancer									
Health professionals	7	11.6			3		4		1.0
Mass Media	13	21.6			3		10		df=2
Family Members	-	-			-		-		NS
Friends & Relatives	5	8.3			2		3		
Co-Workers and neighbors									
Age at Menarche									
Below 10	-	-							
10-11	8	13.3			3	37.5	5	62.5	2.04
12-13	40	66.7			8	20	31	80	df=3
14-15	10	16.7			2	20	8	80	NS
Above 15	2	3.3			0	-	1	100	
Marital Status									
Unmarried	-	-							
Married	40	66.7							1.26
Widowed	20	33.3							df-1
Divorced	-	-							NS
Others	-	-							
Age at Marriage									
Below 18	18	30							1.86
18-22	32	53.3							df=2
23-26	10	16.7							NS
27-30	-	-							
Above 30	-	-							
Parity									
NulliParous	5	8.3			2	40	3	60	3.47
One	-	-			-		-		df=2
Two	18	30			4	30.8	9	69.2	NS
Three & above	37	61.7			7	16.7	35	83.3	

Demographic Variables	Knowledge Level of Women								''Chi'Square x^2 Value
	Sample (n)		Inadequate		Moderately adequate		Adequate		
	No	%	No	%	No	%	No	%	
Duration of Breast feeding for the last child									
No Breast feeding	5	8.3	-		1	20	4	80	2.74
Up to 6 Months	12	20	-		4	33.3	8	66.7	df=3
Up to 1 Year	18	30	-		5	27.8	13	72.2	NS
More than 1 Year	25	41.7	-		3	12	22	88	
History of Oral Contraceptive Intake									
Yes	-	-							NS
No	60	100							
Age of Menopause									
Below 40 Years	1	1.7			0	-	1	100	0.7
40-42 Years	5	8.3			2	40	3	60	df=3
43-45 Years	9	15			2	22.2	7	77.8	NS
Above 45 Years	3	5			1	33.3	2	66.7	

Table 22 represents that the statistical outcome of 'chi' – square analysis, it was used to find out the association between post test levels of knowledge and selected demographic variables. Table 22 reveals that education religion dietary habits are statistically significant at $p<0.05$ level, whereas age in years, occupation, family monthly income, family history of breast cancer, sources of information on previous knowledge of breast cancer, age at menarche, marital status, age at marriage, parity, duration of breast feeding for the last child, history of oral contraceptive intake and age of menopause are not statistically significant. Hence it is interpreted the difference in mean score values are true and the hypothesis 2 was accepted.

Table 23 Analysis of association between pre and post test levels of Attitude and selected demographic variables.

n=60

Demographic Variables	Levels of Attitude among Women								'Chi'Square x^2 Value
	Sample (n)		Unfavourable attitude		Moderately Favourable		Favourable attitude		
	No	%	No	%	No	%	No	%	
Age in Years									
30-35	09	15.0			1		8		
36-40	31	51.7			9		22		4.45
41-45	17	28.3			3		14		df=3
46-50	03	5.0			2		01		NS
Education									
Illiterate	25	41.7			7		18		
Primary	22	36.7			3		19		2.89
High School	13	21.6			5		08		df=2
Higher Secondary	-	-							NS
Degree and above	-	-							
Religion									
Hindu	27	45.0			3		24		5.0*
Muslim	33	55.0			12		21		df=1
Christian	-	-							S
Others	-	-							
Occupation									
Home maker	56	93.3			13		43		
Self Employed	-	-							1.42
Skilled Labour	-	-							df=1
Unskilled labour	4	6.7			2		2		NS
Professionals									
Others									
Family Monthly Income (INR ₹)									
Up to 4000/-	41	68.3			9		32		0.89
4001/- to 6000/-	14	23.3			4		10		df=2
6001/- to 8000/-	5	8.3			2		03		NS
8001/- to 10,000/-	-	-							
Above 10,000/-									
Dietary Habits									
Pure Vegetarian	-	-							0.085
Non – Vegetarian	59	98.3			15		44		df=1
Ovo Vegetarian	01	1.7			0		1		NS

Demographic Variables	Levels of Attitude among Women								'Chi'Square x^2 Value
	Sample (n)		Unfavourable attitude		Moderately Favourable		Favourable attitude		
	No	%	No	%	No	%	No	%	
If yes relationship with the family members									
a. Mother	-	-							
b. Maternal aunty	-	-							
c. Sister	-	-							
d. Grand Mother	1	1.7					1	100	NS
e. Others	-	-							
Sources of Information									
Health professional	7	11.6			3		4		1.0
Mass Media	13	21.6			3		10		df=2
Family Members	-	-			-		-		NS
Friends & Relatives	5	8.3			2		3		
Co-Workers and neighbors									
Age at Menarche									
Below 10	-	-							
10-11	8	13.3			3		5		1.6
12-13	40	66.7			9		31		df=3
14-15	10	16.7			2		8		NS
Above 15	2	3.3			1		1		
Marital Status									
Unmarried	-	-							
Married	40	66.7			7		33		3.6
Widowed	20	33.3			8		12		df-1
Divorced	-	-							NS
Others	-	-							
Age at Marriage									
Below 18	18	30			3		15		1.47
18-22	32	53.3			10		22		df=2
23-26	10	16.7			2		8		NS
27-30	-	-							
Above 30	-	-							
Parity									
Nulli Parous	5	8.3			3		2		6.08*
One	-	-			-		-		df=2
Two	18	30			5		8		S
Three & above	37	61.7			7		35		

Demographic Variables	Level of Attitude among Women								'Chi'Square x^2 Value
	Sample (n)		Unfavourable attitude		Moderately Favourable		Favourable attitude		
	No	%	No	%	No	%	No	%	
Duration of Breast feeding for the last child									
No Breast feeding	5	8.3	-		3		2		8.63*
Up to 6 Months	12	20	-		4		8		df=3
Up to 1 Year	18	30	-		5		13		S
More than 1 Year	25	41.7	-		3		22		
History of Oral Contraceptive Intake									
Yes	-	-							NS
No	60	100							
Age of Menopause									
Below 40 Years	1	1.7			0		1		0.7
40-42 Years	5	8.3			2		3		df=3
43-45 Years	9	15			2		7		NS
Above 45 Years	3	5			1		2		

Table 23 represents that 'chi'- square analysis to find out the association between posttest levels of attitude and selected demographic variables. The results reveals that religion, parity, duration of breast feeding for the last child are statistically significant at $p<0.05$ level whereas age in years, education, occupation, family monthly income, dietary habits, sources of information, age at menarche, marital status, age at marriage, history of oral contraceptive intake and the age of menopause are not statistically significant. Hence it is interpreted the difference in mean score values are true and the hypothesis 2 was accepted.

Table 24 Analysis of association between pre and post test levels of expressed practices and selected demographic variables.

n= 60

Demographic Variables	Levels of expressed practices on breast cancer								'Chi'Square x^2 Value
	Sample (n)		Poor attitude		Fair attitude		good attitude		
	No	%	No	%	No	%	No	%	
Age in Years									
30-35	09	15.0			1		8		
36-40	31	51.7			9		22		4.45
41-45	17	28.3			3		14		df=3
46-50	03	5.0			2		01		NS
Education									
Illiterate	25	41.7			7		18		
Primary	22	36.7			3		19		2.89
High School	13	21.6			5		08		df=2
Higher Secondary	-	-							NS
Degree and above	-	-							
Religion									
Hindu	27	45.0			3		24		5.04*
Muslim	33	55.0			12		21		df=1
Christian	-	-							S
Others	-	-							
Occupation									
Home maker	56	93.3			13		43		
Self Employed	-	-							1.42
Skilled Labour	-	-							df=1
Unskilled labour	4	6.7			2		2		NS
Professionals									
Others									
Family Monthly Income (INR ₹)									
Up to 4000/-	41	68.3			9		32		0.89
4001/- to 6000/-	14	23.3			4		10		df=2
6001/- to 8000/-	5	8.3			2		03		NS
8001/- to 10,000/-	-	-							
Above 10,000/-									
Dietary Habits									
Pure Vegetarian	-	-							0.085
Non – Vegetarian	59	98.3			15		44		df=1
Ovo Vegetarian	01	1.7			0		1		NS

Demographic Variables	Levels of expressed practices on breast cancer								'Chi' Square x^2 Value
	Sample (n)		Poor attitude		Fair attitude		Good attitude		
	No	%	No	%	No	%	No	%	
If yes relationship with the family members									
a. Mother	-	-							
b. Maternal aunty	-	-							
c. Sister	-	-							
d. Grand Mother	1	1.7					1	100	NS
e. Others	-	-							
Sources of Information									
Health professional	7	11.6			3		4		1.0
Mass Media	13	21.6			3		10		df=2
Family Members	-	-			-		-		NS
Friends & Relatives	5	8.3			2		3		
Co-Workers and neighbors									
Age at Menarche									
Below 10	-	-							
10-11	8	13.3			3		5		1.6
12-13	40	66.7			9		31		df=3
14-15	10	16.7			2		8		NS
Above 15	2	3.3			1		1		
Marital Status									
Unmarried	-	-							
Married	40	66.7			7		33		3.6
Widowed	20	33.3			8		12		df-1
Divorced	-	-							NS
Others	-	-							
Age at Marriage									
Below 18	18	30			3		15		1.47
18-22	32	53.3			10		22		df=2
23-26	10	16.7			2		8		NS
27-30	-	-							
Above 30	-	-							
Parity									
Nulli Parous	5	8.3			3		2		6.08*
One	-	-			-		-		df=2
Two	18	30			5		8		S
Three & above	37	61.7			7		35		

Demographic Variables	Levels of expressed practices on breast cancer								'Chi' Square x^2 Value
	Sample (n)		Poor attitude		Fair attitude		Good attitude		
	No	%	No	%	No	%	No	%	
Duration of Breast feeding for the last child									
No Breast feeding	5	8.3	-		3		2		8.63*
Up to 6 Months	12	20	-		4		8		df=3
Up to 1 Year	18	30	-		5		13		S
More than 1 Year	25	41.7	-		3		22		
History of Oral Contraceptive Intake									
Yes	-	-							NS
No	60	100							
Age of Menopause									
Below 40 Years	1	1.7			0		1		0.7
40-42 Years	5	8.3			2		3		df=3
43-45 Years	9	15			2		7		NS
Above 45 Years	3	5			1		2		

Table 24 represents that 'chi'- square analysis to find out the association between posttest levels of expressed practices and selected demographic variables. The results reveals that religion, parity, duration of breast feeding for the last child are statistically significant at $p<0.05$ level whereas age in years, education, occupation, family monthly income, dietary habits, previous knowledge, sources of information, age at menarche, marital status, age at marriage, history of oral contraceptive intake and the age of menopause are not statistically significant. Hence it is interpreted the difference in mean score values are true and the hypothesis 2 was accepted.

CHAPTER V

DISCUSSION

The present study is designed to evaluate the effectiveness of multimedia education on the levels of knowledge, attitude and expressed practices regarding cancer breast and screening among women at Kaspa urban area, Vellore.

Findings of Demographic Variables

Among 60 samples, majority of the women 31(51.7%) were in the age group of 36-40 years, 25 (41.7%) were illiterates, 33 (55%) were Muslims, 56 (93.3%) were homemakers, 41(68.4%) had the monthly income up to 4000/, 59 (98.3%) were non-vegetarians and were not having the family history of breast cancer respectively, 35 women (58.3%) were not having any previous knowledge on cancer breast, 13 (21.6%) got previous information regarding cancer breast through mass media, whereas 7 (11.6%) got information through health professionals. 40 (66.7%) women attained menarche were between the ages of 12 – 13 years, 40 (66.7%) were married and 32 (53.3%) got married between the ages of 18-22 years, 42 (70%) had three or more children, 25 (41.7%) breastfed their last child for more than 1 year. None of the women had the history of oral contraceptive intake, 9 women (15%) attained menopause between the ages of 43-45 years.

The sources of information on cancer breast was supported by S.Ahuja, et al (2009) who conducted a study to determine the level of knowledge regarding cancer breast and to increase awareness about breast cancer, screening practices among a group of women in a tertiary care hospital in Mumbai, India. This study reveals that only 12% of all women had received information about breast cancer through health professionals.

The first objective of the study was to assess the knowledge, attitude and expressed practices regarding cancer breast among women.

A structured interview schedule was used to assess the levels of knowledge among women on cancer breast. In the pre test 60 (100%) women had inadequate knowledge regarding cancer breast, none of them had moderately adequate or adequate knowledge. In the post test, 47 (78.3%) of women had adequate knowledge and 13 (21.7%) had moderately adequate knowledge and no one had inadequate knowledge.

A 5 point Likert scale was used to assess the levels of attitude among women on cancer breast which reveals that in the pretest 60 (100%) women had unfavorable attitude regarding cancer breast and none of them had moderately favourable attitude or favourable attitude. In the post test 45(75%) women had favourable attitude and 15(25%) women had moderately favourable attitude and no one had unfavourable attitude.

A checklist was used to assess the levels of expressed practices regarding cancer breast among women which reveals that in the pretest 60 (100%) women had poor expressed practices regarding cancer breast and breast self examination and no one had fair or good expressed practices. In the posttest 45(75%) women had good expressed practices and 15(25%) women had fair practices and no one had poor expressed practices.

This was supported by Dorach U.Ramathuba.et.al (2015) who conducted a study to assess the knowledge attitude and breast cancer screening practices amongst women aged 30-65 years residing in a rural South African community by using systematic sampling technique. Samples were selected and interviewed by using

structured Questionnaire. Regarding Knowledge, One hundred and four (69%) of the women had never heard of breast cancer, whilst only 46 (31%) had heard of breast cancer, with their source of information being mainly from the media (n=26;56%). Regarding attitude almost half of the women (n=75; 50%) disagreed and 35 (23.3%) strongly disagreed that breast cancer treatment worsens the condition, whereas 33 (23.3%) strongly said that the treatment worsens the condition. Regarding practice of breast cancer screening one hundred and forty-two (94.7%) of the women said that they had never performed breast cancer diagnostic checks and only eight (6.3) had practiced.

The second objective of the study was to evaluate the effectiveness of multimedia education among women.

The pretest knowledge mean score was 6.72± 2.74 and the posttest mean score was 19.47± 2.43. The mean difference of pre and post test knowledge was 12.65. The calculated paired‘t’ test value 40.81 was higher than the table value 2 which is significant at $p<0.05$ level. It shows that the multimedia education is effective, hence hypothesis 1 is accepted.

The pretest attitude mean score was 2.25± 0.8 and the posttest mean score was 8.12± 0.1. The mean difference of pre and post test was 40.9. The calculated paired ‘t’ test value 23.6 was higher than the table value 2 which is significant at $p<0.05$ level. It shows that the multimedia education is effective, hence hypothesis 1 is accepted.

The pre test expressed practices mean score was 22.3± 4.11 and the posttest mean score was 40.9± 7.23. The mean difference of pre and post test was 18.63. The calculated paired ‘t’ test value 21.4 was higher than the table value 2 which is

significant at $p<0.05$ level. It is interpreted that there is significant increase in the level of expressed practices of women after the multimedia education, hence hypothesis 1 is accepted.

This is supported by Ms.Shalini.et.al in 2015 who conducted a study on awareness and impact of education on breast self-education among college going girls in Kodhad, Telangana, India. A pre experimental one group pretest – posttest design was adopted and 50 nursing students were selected by using simple random sampling technique. Data was collected regarding knowledge, attitude and practice by using structure questionnaire, modified three point likert scale and checklist respectively. Structured teaching programme was given by using video clippings, models and demonstration methods. The study findings revealed that 46% had inadequate knowledge, 76% of them had negative attitude and 80% of them had poor practice regarding breast cancer and breast self examination. The effectiveness of programme showed high level of significance at $p<0.01$ level. It shows that structured teaching programme was an effective method to improve the knowledge, attitude and practice and thereby prevention of breast cancer.

The third objective was to associate the post test levels of knowledge, attitude and expressed practices with the selected demographic variables.

The 'chi' square test was used to find out the association between posttest levels of knowledge and selected demographic variables. The results reveals that education, religion dietary habits are statistically significant at $p<0.05$ level, where as age in years, occupation, family monthly income, family history of breast cancer, previous knowledge of breast cancer, sources of information, age at menarche, marital status, age at marriage, parity, duration of breast feeding for the last child, history of

oral contraceptive intake, and age of menopause are not statistically significant. Hence it is interpreted the difference in mean score values are true and the hypothesis 2 was partially accepted.

The 'chi'- square analysis was done to find out the association between posttest levels of attitude and selected demographic variables. The results reveals that religion, parity, duration of breast feeding for the last child are statistically significant at $p<0.05$ level, where as age in years, education, occupation, family monthly income, dietary habits, previous knowledge, sources of information, age at menarche, marital status, age at marriage, history of oral contraceptive intake and the age of menopause are not statistically significant. Hence, it is interpreted the difference in mean score values are true and the hypothesis 2 was partially accepted.

The 'chi'-square analysis to find out the association between posttest levels of expressed practices and selected demographic variables. The result reveals that religion, parity, duration of breast feeding for the last child are statistically significant at $p<0.05$ level whereas age in years, education, occupation, family monthly income, dietary habits, previous knowledge, sources of information, age at menarche, marital status, age at marriage, history of oral contraceptive intake and the age of menopause are not statistically significant. Hence, it is interpreted the difference in mean score values are true and the hypothesis 2 was partially accepted.

Arkierupaia Shadap.et.al. 2013 conducted a descriptive study to assess the knowledge on breast cancer and utilization of mammogram among women in selected villages of Udupi district, Karnataka. Data was collected by using the structured questionnaire among 320 married and unmarried women and the results revealed that majority 46.6% had low knowledge for breast cancer. There was an association

between knowledge and age, marital status, education and source of information about breast cancer and it was found to be significant ($p<0.05$). Mammogram is underutilized among participants, from the total number of population only 19.1% (61) were aware of mammogram.

The fourth objective was to screen the women for detecting cancer breast.

The investigator demonstrated the procedure breast self examination with the help of breast model to the women. Screening was done with the help of medical officer by clinical breast examination in Kaspa urban health post. The screening revealed no abnormalities during clinical breast examination in the women. So further referral like mammography, fine needle aspiration cytology of breast tissue were not performed. One week later the return demonstration of breast self examination was performed satisfactorily by the women.

CHAPTER – VI

SUMMARY AND RECOMMENDATIONS

Summary:

The present study was conducted to assess the effectiveness of multimedia education on levels of knowledge, attitude and expressed practices regarding cancer breast and screening among women in Kaspa urban area, Vellore. The conceptual frame work of the study was based on Ludwig Von Bertalanffy's general system model.

The research design used in the study was pre-experimental, one group pre-posttest design. The tool consists of 4 Sections.

Section A: Demographic variables

Section B: It consists of 25 knowledge questions related to causes and risk factors, signs and symptoms, screening test, and prevention of cancer breast.

Section C**:** It consists of 12 items of attitude on cancer breast. Out of 12, 4 items are positive and 8 items are negative worded.

Section D: It consists of 10 items of expressed practices on cancer breast.

The reliability of the tool was checked by test- retest method. The tool and the multimedia education lesson plan were validated by 5 experts. The feasibility of the study was found out by a pilot study which was conducted among 6 women in Kaspa urban health post, Vellore. The study was found to be feasible to proceed with the main study.

The main study was conducted among 60 selected women who met the inclusion criteria by systematic sampling technique in Kaspa urban area. After the selection of samples, a pretest was conducted by using the structured interview schedule, Likert attitude scale and checklist on expressed practices then multimedia education was given to the women regarding cancer breast and breast self examination using breast model, LCD and poster. After seven days, post test was conducted on the same samples using the same questionnaire, likert attitude scale and checklist. Collected data were analyzed by using descriptive (frequency, percentage, mean and standard deviation) and inferential statistics (Chi square, paired‘t’ test).

Major findings of the study:

- In the pretest regarding the knowledge out of 60 samples, 60 (100%) women had inadequate knowledge, none of them had moderately adequate or adequate knowledge. Regarding attitude 60 (100%) women had unfavorable attitude and no one had moderately favorable attitude or favorable attitude. Regarding expressed practices 60 (100%) had poor expressed practice and no one had fair expressed practice or good expressed practice.

- In the post test regarding the levels of knowledge 47 women (78.3%) had adequate knowledge, 13 (27%) had moderately adequate knowledge and no one had inadequate knowledge. Regarding attitude 45 women (75%) had favourable attitude, 15 (25%) had moderately favourable attitude and no one had unfavourable attitude. Regarding expressed practices 45 (75%) women had good expressed practices, 15 (25%) had fair expressed practice and no one had poor expressed practices.

- Regarding the effectiveness of multimedia education the pretest knowledge mean score was 6.72± 2.74 and the posttest knowledge mean score was 19.47± 2.43. The calculated paired 't' test value 40.81 was higher than the table value 2 which was significant at $p<0.05$ level. The pretest attitude means score was 2.25± 0.8 and the posttest mean score was 8.12± 1.01. The calculated paired 't' test value 23.6 was higher than the table value 2 which is significant at $p<0.05$ level. The pretest expressed practice means score was 22.3± 4.11 and the posttest mean score was 40.9± 7.23. The calculated paired 't' test value 21.4 was higher than the table value 2 which was significant at $p<0.05$ level.

  The findings interpreted that there was significant increase in the level of knowledge, favourable attitude and good expressed practices of women after the multimedia education. This shows that the multimedia education was effective, hence hypothesis 1 was accepted.

- Regarding the association of posttest levels of knowledge with selected demographic variables, education, religion and dietary habits are statistically significant at $p<0.05$ level. Regarding the association of posttest levels of attitude with selected demographic variables, religion, parity, and duration of breast feeding for the last child are satistically significant at $p<0.05$ level. Regarding the association of post test levels of expressed practices with selected demographic variables religion, parity and duration of breast feeding for the last child are statistically significant at $p<0.05$ level.

  It is interpreted that the difference in mean pre and posttest score values are true and the hypothesis 2 was partially accepted.

- Regarding screening clinical breast examination was done to all the women. No one had any signs and symptoms of cancer breast.

Conclusion:

The present study assessed the effectiveness of multimedia education on the levels of knowledge, attitude and expressed practices regarding cancer breast and screening among women at Kaspa urban area, Vellore. Before the multimedia education the levels of knowledge, attitude and expressed practices were inadequate, unfavourable and poor respectively. After the multimedia education it was found that the levels of knowledge increased, favourable attitude and good expressed practices were achieved. This shows that the multimedia education was effective. So educating the women regarding cancer breast and skill development on breast self examination will help for prevention and early detection of cancer breast.

NURSING IMPLICATIONS:

The findings of the present study enabled to determine the effectiveness of multimedia education regarding cancer breast. The findings of the study have implications for nursing practice, nursing education, nursing administration and nursing research.

Nursing Practice:

- Nurses working in the hospital as well as in the community can provide health education regarding awareness and early detection of breast cancer to early adult women.

- Nurses can demonstrate breast self examination and help in skill development to the women those attending the outpatient clinic.

- Demonstration class may be included as in- service education to enhance the nurse's knowledge and skill related to breast self examination and clinical breast examination.

- Regular educational and practical session for nurses can be encouraged to improve the knowledge and skill for early detection of breast cancer.

- Evidenced based practice should be encouraged about breast self examination, clinical breast examination and mammography in Nursing practice.

Nursing education

- Nurse educators can prepare the student nurses to practice the breast self examination every month regularly after 20 years.

- Nurse educators can encourage the student nurses to conduct awareness camps regarding cancer breast.

- The practice and benefits of breast self examination and witnessing clinical breast examination could be introduced in the procedure manual.

- Continuing nursing education programme on early detection of breast cancer can be conducted periodically.

Nursing administration:

- Nurse administrator can motivate the nurses to take part in the early detection of breast cancer awareness programme.

- Nurse administrators can organize workshop, seminars and conferences regarding early detection of breast cancer to update the nurses knowledge.

- Nurse administrator can formulate policies and protocols on breast self examination, clinical breast examination and mammography to be followed by the nurses in outpatient and inpatient clinic.

Nursing Research:

- The Nurse should conduct research by using newer methods to detect early cancer breast.

Recommendations:

- Similar study can be conducted on a larger sample.
- Qualitative study can be done on cancer breast and breast self examination.
- A comparative study can be conducted between experimental and control group.
- The same study can be performed with different settings and different sampling technique.

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APPENDIX – A

Om Namo Narayani

Service with Love

SRI NARAYANI COLLEGE OF NURSING

(A Unit of Sri Narayani Hospital & Research Centre)
Sripuram, Thirumalaikodi, Vellore - 632 055.
Vellore District, Tamilnadu. India.

Dr. N.BALAJI, Ph.D., FIMSA, FACSc.
Director

30.06.2015

To

The Corporation Health Officer,
Vellore City Municipal Corporation,
Vellore – 632 001

Respected Sir/Madam,

Sub: Permission to conduct research dissertation in urban health centre, Kaspa, Vellore, request - reg

Greetings from Sri Narayani College of Nursing

This is for your information that **Mrs. S. Emerald Raja Kumari II year M.Sc (N)** student at Sri Narayani College of nursing is planning a research dissertation on **"Effectiveness of multimedia education on levels of knowledge, attitude, and expressed practices regarding cancer breast among women at selected urban health centre, Vellore",** which is to be submitted to The Tamil Nadu Dr. MGR Medical University as partial fulfillment for awarding of M.Sc (N) degree.

I request you to accord permission to conduct the data collection at the community area covered by the urban health centre, Kaspa. She will abide by the rules & regulations as stipulated,

Please do the needful.

Thanking you,

Yours Sincerely,

Principal

PRINCIPAL
SRI NARAYANI COLLEGE OF NURSING
VELLORE - 55.

APPENDIX - B

From

Tmt.P. Janaki Ravindran,.M.Sc.,B.Ed.,APGDUM.,
Commisioner
Vellore Municipal
Vellore.

To

Sri Narayani College Of Nursing
Srípuram, Thirumalaikoodi
Hospital and Research Center
Vellore.

Roc.No. 11240/2011/H1 Dated. 02.07.2015

Sir,

Sub: Permission- Vellore City Corporation Permission accorded to visit Kasba Urban Health Center regarding.

Ref: Your Letter Dated. 01.07.2015.

Permission is here by accorded to IInd year MSc Nursing student Tmt.S.Emerald Raja Kumari to conduct the data collection at the community area covered by the urban health center kasba.

(Sd) Commisioner
Vellore City Municipal Corporation.

Copy to. Chief Medical Officer
Kasba Urban Health Center.

For Commisioner
Vellore City Municipal Corporation.

2.7.15

APPENDIX - C

CERTIFICATE OF VALIDATION

This is to certify that the questionnaire (Non-Standardized tool) and the demographic variables ,prepared by the researcher for the research study **'Effectiveness of multimedia education on levels of knowledge,attitude,and expressed pratices regarding cancer breast among women at selected area,Vellore.'** Prepared by Mrs.Emerald RajaKumari has been validated by me.

Name :

Designation:

Date:

Institution:

Seal & Signature:

APPENDIX - D

EXPERTS FOR TOOL VALIDITY

1. **Mrs.Alice Sony, M.Sc(N).,**
   Professor,
   Obstetrics and Gynaecological Nursing Department,
   College of Nursing,
   Christian Medical College and Hospital,
   Vellore.

2. **Dr. Mrs. Latha Venkatesan., M.Sc(N)., Ph.D.,**
   Obsterics and Gynaecological Nursing Department,
   Principal of Apollo College of Nursing,
   Vanagaram, Ambattur Road,
   Ayanambakkam,
   Chennai.

3. **Dr. Mrs. Nalini., M.Sc., P.hD.,**
   Obsterics and Gynaecological Nursing Department,
   Vice Principal of Ramachandara University,
   Porur, Chennai.

4. **Mrs. V. Prabha., M.Sc(N)., P.hD.,**
   HOD of Obsterics and Gynaecological Nursing Department,
   Vice Principal of Arun College of Nursing,
   Vellore.

5. **Mrs. Jayashankari., M.Sc(N)., P.hD.,**
   Associate Professor,
   HOD of Obsterics and Gynaecological Nursing Department,
   Pondicherry Institute of Medical Science,
   College of Nursing,
   Pondicherry.

APPENDIX - E

CERTIFICATE OF ENGLISH EDITING.

To whomsoever it may concern

This is to Certify that Mrs. S.Emerald Rajakumari, II M.Sc Nursing, Department of Obstetrics and Gynecological Nursing has to conduct the dissertation for the partial fulfilment of Degree course **"Effectiveness of multimedia education on the levels of knowledge, attitude and expressed practices regarding cancer breast and screening among women at selected urban area, Vellore"** .She has prepared the tool and content. It has been edited by me in English language.

T. Sekhar.

Signature of the Editor

T. THOMAS SEKHAR, M.A., B.Ed., M.Phil.,
ASSOCIATE PROFESSOR & HEAD
DEPT. OF ENGLISH
CORHEES COLLEGE, VELLORE-632 001.

APPENDIX - F

CERTIFICATION OF TAMIL EDITING

To whomsoever it may concern

This is to Certify that Mrs. S.Emerald Rajakumari, II M.Sc Nursing, Department of Obstetrics and Gynecological Nursing has to conduct the dissertation for the partial fulfillment of Degree course **"Effectiveness of multimedia education on the levels of knowledge, attitude and expressed practices regarding cancer breast screening among women at selected urban area, Vellore.** She has prepared the tool and content. It has been edited by me in Tamil language.

Signature of the Editor

Attested
Dr. B.G. THIRUINBAEZHILAN
M.A., M.Phil., B.Ed., Ph.D.,
Assistant Professor of Tamil
P.G. & Research Department of Tamil
Voorhees College, Vellore - 632 001

APPENDIX - G

Letter requesting participation in the study

Dear participant,

I **Mrs.Emerald Raja Kumari.S**, II year M.Sc Nursing student of Sri Narayani College of Nursing conducting study on **"Effectiveness Of Multimedia Education On Levels Of Knowledge, Attitude And Expressed Practices Regarding Cancer Breast And Screening Among Women At Selected Urban Area, Vellore**" as a partial fulfilment of my Masters Degree. In this regard I would like to teach Breast Self Examination which may identify early detection of cancer breast. I assure you that the information obtained from you will be strictly confidential and will be used for the study purpose only. I need your whole-hearted cooperation in this study to gather information and I will be grateful to you for the same.

Thanking you in anticipation,

Yours sincerely,

Mrs.Emerald Raja Kumari.S

CONSENT

I have been informed for the purpose of the study and agree to participate in the same.

Date:

Place:

Signature of participants

APPENDIX- H

Structured interview schedule on knowledge, attitude and expressed practices regarding cancer breast among women.

Section – A
DEMOGRAPHIC VARIABLES

Code No:
Date:

A. Basic data

1. Age (in Years)

1.1. 30 – 35 ( )

1.2. 36 – 40 ( )

1.3. 41 – 45 ( )

1.4. 46 – 50 ( )

2. Education

2.1. Illiterate ( )

2.2. Primary ( )

2.3. High School ( )

2.4. Higher Secondary ( )

2.5. Degree and above ( )

3. Religion

3.1. Hindu ( )

3.2. Muslim ( )

3.3. Christian ( )

3.4. Others ( )

4. Occupation

4.1. Home Maker ( )

4.2. Self Employed ( )

4.3. Skilled Labour ( )

4.4. Unskilled Labour ( )

4.5. Professional ( )

4.6. Others ( )

5. Family Monthly Income INR

5.1. Upto ₹. 4000/- ( )

5.2. ₹.4001 – 6000/- ( )

5.3. ₹.6001 – 8000/- ( )

5.4. ₹.8001 – 10,000/- ( )

5.5. More than 10,000/- ( )

6. Dietary Hanits

6.1. Pure Vegetarian ( )

6.2. Non – Vegetarian ( )

6.3. Ovo Vegetarian ( )

7. Is there any family history of breast cancer

7.1. Yes ( )

7.2. No ( )

7.1. **If yes, relationship with the family member**

7.1.1. Mother ( )

7.1.2. Maternal aunt ( )

7.1.3. Sister ( )

7.1.4. Grand Mother ( )

7.1.5. Others ( )

8. Previous knowledge of breast cancer

8.1. Yes ( )

8.2. No ( )

8.1. **If Yes, source of information through**

8.1.1. Health professional ( )

8.1.2. Mass media ( )

8.1.3. Family Members ( )

8.1.4. Friends & relatives ( )

8.1.5. Co – workers & neighbors. ( )

B. Obstetrical Data :

9. Age at Menarche (Years)

9.1. Below 10 ( )

9.2. 10 – 11 ( )

9.3. 12 – 13 ( )

9.4. 14 – 15 ( )

9.5. Above 15 ( )

10. Marital Status

10.1. Unmarried ( )

10.2. Married ( )

10.3. Widowed ( )

10.4. Divorced ( )

10.5. Others ( )

11. Age at Marriage (Years)

11.1. Below 18 ( )

11.2. 18 – 22 ( )

11.3. 23 – 26 ( )

11.4. 27 – 30 ( )

11.5. Above 30 ( )

12. Parity

12.1. Nulliparous ( )

12.2. One ( )

12.3. Two ( )

12.4. Three and above ( )

13. Duration of Breast feeding for the last child

13.1. No breast feeding ( )

13.2. Up to 6 months ( )

13.3. Upto 1 Year ( )

13.4. More than 1 Year ( )

14. History of oral contraceptive in take

14.1. Yes ( )

14.2. No ( )

14.1. If yes, mention the type of contraception

14.1.1. …….. ( )

14.1.2. …….. ( )

15. Have you attained menopause?

15.1. Yes ( )

15.2. No ( )

15.1. If yes, in which age you attained menopause?

15.1.1. below 40 years ( )

15.1.2. 40 – 42 ( )

15.1.3. 43 – 45 ( )

15.1.4. above 45 years ( )

SECTION – B

STRUCTURED INTERVIEW SCHEDULE ON KNOWLEDGE REGARDING CANCER BREAST AMONG WOMEN

I. Causes and risk factors for cancer breast

1. The most common cancer for women is

a. Cancer breast and cervix ( )

b. Cancer uterus and vagina ( )

c. Cancer ovary and fallopian tube ( )

2. Cancer breast is common in women who have

a. No children ( )

b. One or two children ( )

c. Three or more children ( )

3. Cancer breast risk is higher in women who has their first child when they were

a. Less than 20 years ( )

b. Between 20 to 30 years ( )

c. More than 30 years ( )

4. The risk of early breast cancer is prevented by giving breast feeding for

a. 6 months ( )

b. 12 months ( )

c. 24 months ( )

5. Cancer breast is higher in women who attained menarche

a. Before 12 years ( )

b. Between 12 and 15 Years ( )

c. After 15 years ( )

6. Cancer breast is higher in women who attained menopause.

a. Before 45 years ( )

b. Between 45 and 50 years ( )

c. After 50 years ( )

7. Cause of cancer breast is

a. Bacteria ( )

b. Virus ( )

c. Unknown ( )

II. Signs and symptoms of cancer breast

8. Commonest sign of cancer breast is

a. Hard lump in the breast ( )

b. Lump in the uterus ( )

c. Lump in the Ovary ( )

9. In breast cancer, a nipple is

a. Retracted ( )

b. Normal ( )

c. Erected ( )

10. Nipple discharge is one of the main sign of cancer breast when it is secreting

a. Milk ( )

b. Other discharges ( )

c. Nothing ( )

III. Screening test for cancer breast

11. The right time of doing breast self examination is

a. Once in a year ( )

b. Once in Two Year ( )

c. Once in a month ( )

12. Breast self examination is performed every time

a. Before menstruation ( )

b. During menstruation ( )

c. After menstruation ( )

13. Breast self examination is performed in menopausal women

a. Any day every month ( )

b. Same day every month ( )

c. Any day every week ( )

14. Clinical breast examination is ideally performed by

a. Oneself ( )

b. Relatives ( )

c. Health professionals ( )

15. Clinical breast examination is ideally performed every

a. Two years ( )

b. Yearly once ( )

c. Three years ( )

16. The most reliable and cost effective screening for cancer breast is

a. Mammography ( )

b. Breast self examination (BSE) ( )

c. Clinical breast examination (CBE) ( )

17. Mammography is recommended

a. Once in two years ( )

b. Once in three years ( )

c. Once in four years ( )

18. Mammography is recommended for women of the age group

a. 20 – 30 years ( )

b. 30 - 40 years ( )

c. 40 – 45 years ( )

19. Advantage of mammography is

a. Early detection of cancer in breast ( )

b. Early detection of cancer in cerrix ( )

c. Early detection of cancer in ovary ( )

IV. Prevention of cancer

20. Risk for cancer breast can be reduced by

a. Stressful life ( )

b. Anxious behavior ( )

c. Stress free life ( )

21. Regular sleep reduces risk for cancer breast is due to

a. Poor immunity ( )

b. Improved immunity ( )

c. Reduced immunity ( )

22. The risk of cancer breast is reduced by consuming

a. Meat ( )

b. Milk and milk products ( )

c. Fish oil ( )

23. Fibrocystic breast changes like dilation of ducts and cysts form occurs most commonly in the age group of.

a. 20 to 30 years ( )

b. 30 to 50 years ( )

c. 60 to 70 years ( )

24. Mammography procedure takes about

a. 60 minutes ( )

b. 30 minutes ( )

c. 20 minutes ( )

25. Mammography is a breast imaging technique and also helps to identify

a. Non palpable lesions ( )

b. Bone deformities ( )

c. Fracture ( )

SECTION – C

LIKERT SCALE ON ATTITUDE REGARDING CANCER BREAST AMONG WOMEN

Strongly Agree- **SA**, Agree- **A**, Neutral –**N**, Disagree – **DA**, Strongly Diagree - **SD**

S.No	ITEMS	SA	A	N	D	SD
1	Breast cancer is a punishment from God.					
2	Breast self examination is necessary only when there is a problem.					
3	Women with breast cancer should be supported by the community.					
4	Clinical breast examination should be performed by female health personnel.					
5	Breast cancer would threaten relationship with my husband					
6	Women with Breast cancer should not be allowed to breast feed.					
7	Women with Breast cancer can still live a good quality of life.					
8	Women with breast cancer will not live longer than 5 years, even after taking treatment.					
9	Breast cancer is cured by traditional healer.					
10	Women with breast cancer should be isolated from the home					
11	Cure determined by early detection					
12	Breast cancer treatment worsens the disease.					

SECTION – D

CHECK LIST TO ASSESS EXPRESSED PRACTICES REGARDING CANCER BREAST AMONG WOMEN

S.No	ITEMS	YES	NO
1	I perform breast examination every month, regularly.		
2	I perform breast self examination for early detection than the normal size.		
3	I am able to notice when my breast looks differently than the normal size.		
4	I am able to identify lump by performing breast self examination.		
5	I am confident to use finger pads to do breast self examination.		
6	I am confident to report any changes in the breast to health personnel's.		
7	I feel it is important to undergo mammography when my physician advices.		
8	I feel it is important to undergo clinical breast examination once in a year.		
9	I should stay away from sexual activity if I develop breast cancer.		
10	I prefer high fiber diet and vegetables to reduce the risk of cancer.		

ANSWER KEYS FOR KNOWLEDGE QUESTIONNAIRE

S.NO	ANSWER
1	a
2	a
3	c
4	b
5	a
6	a
7	c
8	a
9	a
10	b
11	c
12	a
13	b
14	a
15	b
16	b
17	a
18	b
19	a
20	c
21	a
22	c
23	b
24	c
25	a

APPENDIX- I

பகுதி - அ

1. வயது (வருடங்களில்)

1.1. 30லிருந்து 35 வரை

1.2. 36லிருந்து 40 வரை

1.3. 41லிருந்து 45 வரை

1.4. 46 லிருந்து 50 வரை

2. கல்வி தகுதி

2.1. கல்வி தகுதி இல்லை

2.2. தொடக்க கல்வி

2.3. உயர்க்கல்வி

2.4. உயர்நிலைக் கல்வி

2.5. பட்டபடிப்பு அதற்கு மேல்படிப்பு

3. மதம்

3.1. இந்து

3.2. முஸ்லிம்

3.3. கிறிஸ்துவர்

3.4. மற்றவை

4. தொழில்

4.1. இல்லத்தரசி

4.2. சுய தொழில்

4.3. தொழில் பயிற்சி பெறாத தொழிலாளி

4.4. பயிற்சி பெற்ற தொழிலாளி

4.5. தொழில் முறை தொழிலாளி

5. மாத குடும்ப வருமானம்

5.1. 4000த்துக்கும் கீழ்

5.2. 4001லிந்து 6000 வரை

5.3. 6001லிருந்து 8000 வரை

5.4. 8001லிருந்து 10,000 வரை

5.5. 10,000 க்கும் மேல்

6. உணவு பழக்க வழக்கம்

6.1. சைவ உணவு

6.2. அசைவ உணவு

6.3. முட்டை உட்கொள்ளும் சைவம்

7. இதுவரை குடும்ப ரீதியாக யாருக்காவது மார்பக புற்றுநோய் உள்ளதா?

7.1. ஆம்

7.2. இல்லை

7. 1**. ஆம் என்றால் உங்களின் உறவு முறை என்ன?**

1. அம்மா

2. அத்தை

3. அக்கா / சகோதரிகள்

4. பாட்டி

5. மற்றவர்கள்

8. மார்பக புற்றுநோய்கான விழிப்புணர்வு

8.1. ஆம்

8.2. இல்லை

8.1. **தகவல் முறைகள் அறிந்த வழிகள்,**

1. சுகாதார பணியாளர்கள்

2. ஊடகங்கள்

3. குடும்பத்தினர்கள்

4. நண்பர்கள் மற்றும் உறவினர்கள்

5. உடன் வேலை செய்பவர்கள் மற்றும்

9. பூப்படந்த வயது (வருடங்களில்)

9.1. 10 வயதுக்கு கீழ்

9.2. 10 - 11

9.3. 12 - 13

9.4. 14 - 15

9.5. 15 வயதுக்கு மேல்

10. திருமண விவரம்

10.1. திருமணம் ஆகாதவர்

10.2. திருமணம் ஆனாவர்

10.3. விதைவை

10.4. தனித்து வாழ்பவர்

10.5. மற்றவை

11. திருமணம் ஆன வயது

11.1. 18 வயதிற்கு கீழ்

11.2. 18லிருந்து 22 வயது

11.3. 23லிருந்து 26 வயது

11.4. 27லிருந்து 30 வயது

11.5. 30 வயதுக்கு மேல்

12. எத்தனை குழந்தைகள்?

12.1. குழந்தை இல்லாமை

12.2. ஒன்று

12.3. இரண்டு

12.4. மூன்று அதற்கு மேல்

13. தாய்பால் புகட்டின காலம்

13.1. தாய்பால் கொடுக்கவே இல்லை

13.2. 6 மாதம் வரை

13.3. 1 வருடம் வரை

13.4. 1 வருடத்திற்கு மேல்

14. இதுவரை கர்பதடுப்பிற்கான மாத்திரைகள் எடுத்தது உண்டா?

14.1. ஆம்

14.2. இல்லை

15. மாதவிடாய் காலம் முடிந்து விட்டதா?

15.1. ஆம்

15.2. இல்லை

15.1. ஆம் என்றால் உங்களின் வயது என்ன?

1. 40 வயதுக்கு கீழ்
2. 40 - 42 வருடம்
3. 43 - 45 வருடம்
4. 45 வயதுக்கு மேல்

பகுதி - ஆ

மார்பக புற்றுநோய் பற்றிய அறிவுத்திறன்:

I. மார்பக புற்றுநோய்க்கான காரண, காரணிகள்:

1. பெண்களுக்கு வரும் பொதுவான புற்றுநோய்

1.1. மார்பக மற்றும் கருப்பை வாய் புற்றுநோய்

1.2. கருப்பை மற்றும் யோனி புற்றுநோய்

1.3. சினைப்பை மற்றும் சினைப்பை குழாய் புற்றுநோய்

2. மார்பக புற்றுநோய் பெண்களுக்கு பொதுவாக வருவதற்கான வாய்ப்பு

2.1. குழந்தைகளே இல்லாதவர்

2.2. ஒன்று (அ) இரண்டு குழுந்தைகள் உள்ளவர்

2.3. மூன்று (அ) அதற்கு மேற்பட்ட குழந்தைகள் உள்ளவர்.

3. மார்பக புற்றுநோய்க்கான ஆபத்து, அதிகமாக இருப்பது, பெண்களின் முதல் குழந்தை பிறந்த வயது.

3.1. 20 வருடத்துக்கும் குறைவான.

3.2. 20 முதல் 30 வருடத்துக்குள்

3.3. 30 வருடத்துக்கு மேற்பட்ட

4. ஆரம்ப கால மார்பக புற்றுநோய்க்கான ஆபத்தை தடுக்க தாய்ப்பாலை கொடுக்கக் கூடிய காலம், குறைந்தது.

4.1. 6 மாதங்கள்

4.2. 12 மாதங்கள்

4.3. 24 மாதங்கல்

5. மார்பக புற்றுநோய் அதிகமாக வரக்கூடியது என்பது பெண்கள் எந்த வயதில் பூப்பெய்தியது.

5.1. 12 வருடத்திற்க்கு முன்

5.2. 12 மற்றும் 15 வருடத்துக்குள்

5.3. 15 வருடத்திற்கு மேற்பட்ட

6. மார்பக புற்றுநோய் அதிகமாக வரக்கூடிய என்பது பெண்கள் இறுதி மாதவிடாய் அடைந்த வயது?

6.1. 45 வருடத்திற்கு முன்

6.2. 45 மற்றும் 50 வருடத்துக்குள்

6.3. 50 வருடத்திற்கு மேல்

7. மார்பக புற்றுநோய்க்கான காரணம்?

7.1. பாக்டீரிய

7.2. வைரஸ்

7.3. தெரியவில்லை

II. மார்பக புற்றுநோயின் அறிகுறிகள்:

8. மார்பக புற்றுநோயால் ஏற்படும் பொதுவான அறிகுறிகள்.

8.1. மார்பகத்தில் கடினமான கட்டி

8.2. கருப்பையில் கடினமான கட்டி

8.3. சினைப்பையில் கடினமான கட்டி

9. மார்பக புற்றுநோயில், மார்பககாம்பு

9.1. உள்நோக்கி இருக்கும்

9.2. சாதாரணமாக இருக்கும்

9.3. முன்நோக்கி இருக்கும்

10. மார்பக புற்றுநோய்க்கான முக்கிய அறிகுறி, என்பது மார்பக நுனியில் வடியும்.

10.1. பால்

10.2. மற்ற திரவங்கள்

10.3. ஒன்றுமில்லை

III. மார்பக புற்றுநோயினை பரிசோதிக்கும் ஆய்வு முறைகள்:

11. சரியான காலத்தில் சுய மார்பக பரிசோதனை செய்யப்படுவது.

11.1. வருடத்திற்கு ஒருமுறை

11.2. இரண்டு வருடத்திற்கு ஒருமுறை

11.3. மாதத்திற்கு ஒருமுறை

12. மார்பக சுய பரிசோதனை செய்யப்படுவது ஒவ்வொரு நேரமும்

12.1. மாதவிடாய்க்குய் முன்

12.2. மாதவிடாய்க்கு போது

12.3. மாதவிடாய்க்கு பிறகு

13. மாதவிடாய் நின்ற பெண்களுக்கு, மார்பக சுய பரிசோதனை செய்யப்படுவது.

13.1. ஏதாவது ஒரு நாள் ஒவ்வொரு மாதமும்.

13.2. அதே நாள் ஒவ்வொரு மாதமும்.

13.3. ஏதாவது ஒரு நாள், ஒவ்வொரு வாரமும்.

14. மார்பக ஆய்வு பரிசோதனையை சிறந்த முறையில் செய்யக் கூடியவர்கள்

14.1. தனக்குத் தானே

14.2. உறவினர்கள்

14.3. சுகாதார அலுவலர்கள்

15. மார்பக ஆய்வு பரிசோதைகளை சிறந்த முறையில் செய்யப்படுவது

15.1. இரண்டு வருடத்திற்கு ஒருமுறை

15.2. வருடத்திற்கு ஒருமுறை

15.3. மூன்று வருடத்திற்கு ஒருமுறை

16. மார்பக புற்றுநோய்க்கான அதிகபட்ச நம்பத்தகுந்த மற்றும் செலவு குறைந்த ஆய்வு

16.1. மேமோகிராபி

16.2. மார்பக சுய பரிசோதனை

16.3. மார்பக ஆய்வு பரிசோதனை

17. மேமோகிராபி பரிந்துரைச் செய்யப்படுவது ஒவ்வொரு

17.1. இரண்டு வருடத்திற்கு ஒருமுறை

17.2. மூன்று வருடத்திற்கு ஒருமுறை

17.3. நான்கு வருடத்திற்கு ஒருமுறை

18. மேமோகிராபி பரிந்துரை செய்யப்படும் பெண்களுக்கான வயது

18.1. 20 - 30 வருடம்

18.2. 30 - 40 வருடம்

18.3. 40 - 50 வருடம்

19. மேமோகிராபியின் பயன் என்பது (முளை ஊடுகதிர்படம்)

19.1. ஆரம்பக் கால மார்பக புற்றுநோயை கண்டறிதல்

19.2. ஆரம்பக் கால கருப்பை புற்றுநோயை கண்டறிதல்

19.3. ஆரம்பக் கால சினைப்பை புற்றுநோயை கண்டறிதல்

IV. மார்பக புற்றுநோயை தடுக்கும் முறைகள்:

20. மார்பக புற்றுநோயின் ஆபத்தை குறைப்பது.

20.1. மன அழுத்தமான வாழ்க்கை

20.1. பயம் நிறைந்த நடத்தை

20.3. மன அழுத்தமற்ற வாழ்க்கை

21. மார்பக புற்றுநோயின் ஆபத்தை சரியான முறை தூக்கம் குறைக்கும் ஏனென்றால்

21.1. குறைந்த எதிர்புதிறன்.

21.2. அதிகமான எதிர்ப்புத்திறன்.

21.3. எதிர்ப்புத் திறன் குறைக்கும்.

22.மார்பக புற்றுநோய்க்கான ஆபத்தை குறைத்திட எடுக்க வேண்டியது.

22.1. மாமிசங்கள்

22.2. பால் மற்றும் பால் சார்ந்த பொருட்கள்

22.3. மீன் எண்ணெய்

23. பைப்ரோ சிஸ்டிக் (நீர்மத்திசு வளர்ச்சி மார்பக மாற்றம்) என்னும் நாளம் விரிதல் மற்றும் கட்டி வருதல் என்பவை பொதுவாக வரும் வயது.

23.1. 20 முதல் 30 வருடங்கள்

23.2. 30 முதல் 50 வருடங்கள்

23.3. 60 முதல் 70 வருடங்கள்

24. மேமோகிராபி சோதனை எடுக்க தேவையான நேரம்

24.1. 60 நிமிடங்கள்

24.2. 30 நிமிடங்கள்

24.3. 20 நிமிடங்கள்

25. மேமோகிராபி என்னும் ஊடுகதிர்படம் மூலம் கண்டறியப்படுவது.

25.1. தொட்டு உணர முடியாத கட்டிகள்

25.2. எலும்பு முறிவு

25.3. மார்பகம் சிவப்பாக இருத்தல்.

பகுதி - இ

பெண்களின் மார்பக புற்றுநோய் பற்றிய மனோபாங்களை அறியும் லைக்கர்ட் அளவுகோல்

வரிசை எண்	உருப்படி	அதிக அளவில் உடன்படுகிறேன்	உடன்படுகிறேன்	நடுநிலை	உடன்பாடில்லை	அதிக அளவில் உடன் பாடில்லை
1	மார்பக புற்றுநோய் என்பது கடவுள் கொடுத்த தண்டனை					
2	மார்பக சுய பரிசோதனை என்பது ஏதேனும் பிரச்சனை இருந்தால் மட்டுமே அவசியம்					
3	மார்பக புற்றுநோய் உடைய பெண்களுக்கு சமூகம் ஆதரவு கொடுக்க வேண்டும்					
4	மார்பக ஆய்வு பரிசோதனை, மருத்துவ பெண் சுகாதார பணியாளரால் செய்யப்பட வேண்டும்.					
5	மார்பக புற்றுநோய் என்னுடைய கணவருடன் கூடிய உறவினை அச்சுறுத்துகிறது.					
6	மார்பக புற்றுநோய் உடைய பெண்கள், தாய் பாலைக் கொடுக்க அனுமதிக்க கூடாது					
7	மார்பக புற்றுநோய் உடைய பெண்கள் எப்பொழுதும் நம்பும் தன்மையுடைய வாழ்வை வாழ முடியும்.					
8	மார்பக புற்றுநோய் உடைய பெண்கள் சிகிச்சை மேற்கொண்டாலும் 5 வாருடத்திற்கு மேல் வாழ்வதில்லை.					
9	மார்பக புற்றுநோய் பாரம்பரிய மருத்துவரால் சரிசெய்யப்படும்.					
10	மார்பக புற்றுநோய் உடைய பெண்களை வீட்டிலிருந்து தள்ளி வைக்கப்பட வேண்டும்					
11	குணமடைதல் என்பது ஆரம்பகால கண்டறிதலின் மூலம் தீர்மானிக்கப்படுகிறது.					
12	மார்பக புற்று நோய்க்கான மருத்துவ முறை நோயை மோசமாக்குகிறது.					

பகுதி - ஈ

மார்பக புற்றுநோய்க்கான வெளிப்படுத்தும் நடைமுறைய மதிப்பீடும் பட்டியல்

வரிசை எண்	உருப்படி	ஆமாம்	இல்லை
1	நான் மார்பக சுய பரிசோதனையை ஒழுங்காக ஒவ்வொரு மாதமும் செய்கிறேன்.		
2	நான் மார்பக சுய பரிசோதனையை ஆரம்ப காலத்திலேயே புற்றுநோய் இருக்கின்றது என்பதை அறிய செய்கிறேன்.		
3	நான் மார்பக சுய பரிசோதனை செய்து கொள்வதின் மூலம், வேறுபட்ட மார்பு அளவை காணமுடிகிறது.		
4	சாதாரண அளவில் இருந்து, மார்பகத்தில் எதேனும் மாற்றம் தெரிந்தால் என்னால் அதை கண்டறிய முடிகிறது.		
5	நான் நம்பிக்கையுடன் விரல் திண்டினை பயன்படுத்தி மார்பக சுய பரிசோதனை செய்கிறேன்.		
6	நான் நம்பிக்கையுடன் மார்பகத்தில் ஏதேனும் மாற்றம் தெரிந்தால் சுகாதார அலுவலருக்கு சொல்கிறேன்.		
7	நான் மேமோகிராபி செய்து கொள்ள வேண்டியதின் முக்கியத்துவத்தை மருத்துவரின் மூலம் உணர்ந்தேன்.		
8	நான் மார்பக ஆய்வு பரிசோதனையை ஆண்டுக்கு ஒருமுறை செய்ய வேண்டியதின் முக்கியதுவத்தை உணர்கிறேன்.		
9	எனக்கு மார்பக புற்றுநோய் இருந்தால், நான் உடலுறவு கொள்வதிலிருந்து விலகி இருக்க வேண்டும்.		
10	புற்றுநோயை குறைக்க நார்சத்து மிகுந்த உணவுப்பொருட்கள் மற்றும் காய்கறிகள் எடுத்துகொள்ள வேண்டும்.		

அறிவு சோதிக்கும் கேள்விதாளின் பதில்கள்

வரிசை எண்	பதில்கள்
1	1.1
2	2.1
3	3.3
4	4.2
5	5.1
6	6.1
7	7.3
8	8.1
9	9.1
10	10.2
11	11.3
12	12.1
13	13.2
14	14.1
15	15.2
16	16.2
17	17.1
18	18.2
19	19.1
20	20.3
21	21.3
22	22.3
23	23.2
24	24.3
25	25.1

APPENDIX – I

MULTIMEDIA EDUCATION ON CANCER BREAST AND SCREENING AMONG WOMEN

xxx

BIOGRAPHIC DATA

NAME OF THE RESEARCHER	**:**	Mrs. S.EMERALD RAJA KUMARI.,
COURSE	**:**	M.Sc.,(N) II YEAR
SPECIALITY	**:**	OBSTETRICS AND GYNAECOLOGICAL NURSING
TOPIC	**:**	MULTIMEDIA EDUCATION ON CANCER BREAST
GROUP	**:**	WOMEN
GROUP SIZE	**:**	60
TIME/DURATION	**:**	1 HOUR
PLACE	**:**	KASPA URBAN AREA, VELLORE
METHOD OF TEACHING	**:**	LECTURE CUM DEMONSTRATION
A.V.AIDS	**:**	BREAST MODEL, PPT, POSTERS

GENERAL OBJECTIVES:-

At the end of the multimedia education, the mothers are able to gain knowledge, develop positive attitude and develop desirable skills to perform breast self – examination to approach hospital for further investigations, if they found any abnormalities in the breast self examination.

SPECIFIC OBJECTIVES:-

At the end of the multimedia education, each mother is able to

- review the anatomy and physiology of breast
- describe the meaning of cancer breast
- list down the causes of cancer breast
- state the risk factors of cancer breast
- enlist the signs and symptoms of cancer breast
- explain the diagnosis and treatment for cancer breast
- discuss the preventive measures for cancer breast
- demonstrate breast self examination
- identify abnormalities in breast self examination and approach health care facility for further treatment on time.

TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHER LEARNERS ACTIVITY	AV AIDS
1min	Review the anatomy and physiology of the breast	**INTRODUCTION** Throughout history the female breast has been regarded as a symbol of beauty, sexuality and motherhood. Breast problems are significant health concerned to women. Cancer breast is the most common problem of the women. Cancer breast is also known as carcinoma in breast. It is the fifth most common cause of cancer deaths after lung, stomach, liver and colon cancers. Even though breast cancer in India is rising at an alarming rate and has become the second most common cancer affecting Indian women. **ANATOMY AND PHYSIOLOGY OF BREAST** The breasts are mammary glands of the female reproductive system. In the female the breasts are small and immature and remain quiescent till puberty. At the time of puberty, before the start of menses, the breast starts developing and get enlarged. After the onset of menses (menarche) they grow and develop to their their mature size under the influence of estrogen and progesterone. During pregnancy these hormones stimulate further growth. After the baby is born the hormone prolactin from the anterior pituitary stimulates the production of milk, and oxytocin from the posterior pituitary stimulates the release of milk, by a positive feedback mechanism.	reviewing the anatomy and physiology of breast	

TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHER LEARNERS ACTIVITY	AV AIDS
3 min		**STRUCTURE :** The breast consists of • glandular tissue • fibrous tissue and • fatty tissue Each breast consists of about 15 – 20 lobes of glandular tissue, each lobe being made up of a number of lobules that radiate around the nipple. The lobules consist of a cluster of alveoli that open into small ducts, and these unite to form large excretory ducts, called lactiferous ducts. Fibrous tissue supports the glandular tissue and also found between the lobes. The nipple is a small conical eminence at the center of the breast surrounded by a pigmented area, the areola. On the surface of the areola there are numerous sebaceous glands (Montgomery's tubercle), which lubricate the nipple during lactation.	Lecturing & listening	

TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHER LEARNERS ACTIVITY	AV AIDS
2 Min	Describe the meaning of cancer breast	**CANCER BREAST:-** **Meaning :** • Breast cancer is a kind of tumor that develops in the cells of a person's breast. • Breast cancer is a malignant proliferation of epithelial cells lining the ducts or lobules of the breast. **INCIDENCE :** In the developing countries cancer ranks third as a cause of death and accounts for 9.5 % (3.8 million) of all deaths. In united states, according to 2014 report 232,670 new cases of invasive cancer breast, 62, 570 new cases of in situ cancer breast, 40,000 deaths occurred due to cancer breast. In India, the incidence of cancer breast is increasing with an estimated 80,000 new cases were diagnosed annually and one in 22 women is likely to suffer from cancer breast.	Describing the meaning of cancer breast	

TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHER LEARNERS ACTIVITY	AV AIDS
5 Mins	List down the causes of cancer breast	**CAUSES :** • Breast cancer is always caused by a genetic abnormality (a "mistake" in the genetic material). • However, only 5 – 10% of cancers are due to an abnormality inherited from mother or father. • About 90 % of cancer breast are due to genetic abnormalities that happen as a result of the aging process and the "wear and tear" of life in general.	Listing down the cancer of cancer breast	
7 Mins	State risk factors of cancer breast	**RISK FACTORS :** Following are the few of the risk factors that are associated with breast cancer. **a. MODIFIABLE RISK FACTORS :** • Obesity • Sedentary life style • lack of physical activity • Not having children (Nulliparous) • Hormone therapy, estrogen combined with progesterone or progestin • Alcohol intake	Stating the risk factors of cancer breast	

TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHER LEARNERS ACTIVITY	AV AIDS
		b. NON MODIFIABLE RISK FACTORS • Old age • Family history of breast, ovarian, colon cancer • H/o chronic benign breast disease, Personal H/o cancer in the same breast or the opposite breast • Early menstruation • Late menopause • Late pregnancy (first time after 35 years) or never being pregnant • History of radiation therapy to the chest, especially during puberty • Certain inherited genetic alterations in BRCAI and BRCA 2 genes • Treatment with Di Ethyl Stilbesterol (DES) **c. HIGHER RISK FACTORS :-** Women with the following risk factors are fall into the category "High risk group" • Family H/o breast / Ovarian/ colon cancer • H/o chronic benign breast diseases • Personal H/o breast cancer in the same breast or the opposite breast		

TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHER LEARNERS ACTIVITY	AV AIDS
5 Mins	Enlisting the signs and symptoms of cancer breast	**SIGNS AND SYMPTOMS :** • Change in breast size • Pain or tenderness • Redness • Changes in position of nipple • Scaling around nipples • Sore on breast that does not heal • Puckering • Dimpling • Retraction • Nipple discharge • Thickening of skin or lump or "knot" • Retracted nipple **Warning signs of cancer breast** • Lump or mass in the arm pit • A change in the size or shape of the breast • Abnormal nipple discharge – Usually bloody or clear – to – yellow or green fluid, May look like pus (purulent) • Change in the color or peel of the skin of the breast, nipple, or areola • Dimpled, puckered, or scaly breast - Retraction, "orange peel" appearance - -Redness - Accentuated veins on breast surface	Listing the signs and symptoms	

TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHER LEARNERS ACTIVITY	AV AIDS
3 Mins	Specify the diagnostic evaluation of breast cancer	• Change in appearance or sensation of the nipple • Pulled in (retraction), enlargement, or itching • Breast pain, enlargement, or discomfort on one side only • Any breast lump, pain, tenderness, or other change in a women • Symptoms of advanced disease are bone pain, weight loss, swelling of one arm, and skin ulceration. **DIAGNOSTIC EXAMINATION** 1. Breast self examination – cultivate a habit of breast self examination among women helps to find abnormalities in the breast at an early stage 2. Screening using clinical breast examination (CBE) technique – chances of having cancer is found. 3. FNAC / biopsy/nipple discharge cytology – tissue sampling is done and sent for HPE 4. Mammography / USG breast – chances of having cancer is radiologically confirmed tissue sampling is done and sent for HPE 5. True cut / open biopsy – tissue sampling is done and sent for HPT 6. Histopathological examination (HPE)- chances of having cancer is microscopically confirmed. 7. Diagnosis, staging and treatment-identify cancer cases and ensure complete treatment.	Specifying the diagnostic evaluation of cancer breast	

TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHER LEARNERS ACTIVITY	AV AIDS
2 Mins	Explaining the treatment of cancer breast	**TREATMENT** The main cancer breast treatment options may include : I. Surgery • Lumpectomy • Mastectomy • Lymph node surgery • Sentinel node biopsy • Axillary lymph node dissection • Breast reconstruction surgery II. Radiation therapy III. Biological therapy (targeted drug therapy) IV. Hormonal therapy V. Chemotherapy	explaining listening	
10 Mins	Discuss the preventive measures for cancer breast	**PREVENTIVE MEASURES** **I. PRIMARY PREVENTION** The aim of primary prevention is to eliminate or modify established risk factors for developing breast cancer. Some of the risk factors are genetic, environmental and behavioural. alter the risk factors like HRT and consumption of alcohol it is obvious that knowledge and awareness about the cancer breast can impact directly upon behavior leading to modify breast cancer risk.	Discussing and listening	

TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHER LEARNERS ACTIVITY	AV AIDS
5 Mins		**II. SECONDARY PREVENTION** Secondary prevention comprises of diagnosis and treat the cancer. Early detection could mean earlier diagnosis of symptomatic breast cancer. **III. CLINICAL BREAST EXAMINATION (CBE)** Both breasts are visually inspected and palpated. In different positions from all sides for the following signs and referred for further investigations on finding for anything suspicious or abnormal. a. **INSPECTION:** any changes in symmetry in breast shape and size, skin changes – skin dimpling, skin retraction, skin ulceration, the position, of both nipples, retraction of nipples, inverted nipple, horizontal slit is a normal variation. b. **PALPATION :** Any discharge from the nipples, color of the discharge, swelling in the arm pit (axillary area), above the collar bone (supraclavicular area). c. **INTERPRETATION :** The results of CBE will be interpreted in the following ways: Normal / negative –no abnormalities on visual inspection or palpation High risk – target women with family H/o breast / ovarian / colon cancer, with H / o chronic benign breast diseases and with personal H /o cancer breast in the same breast or the opposite breast will be categorized under high		

TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHER LEARNERS ACTIVITY	AV AIDS
35 Mins		high risk group and referred directly for mammography **Abnormal :** definite asymmetrical finding on either visual inspection or palpation. It could be either probably malignant or probably non malignant. Presence of discrete hard lumps in the breast with or without swelling in the armpit, recent nipple retraction or distortion, skin dimpling or retraction, ulceration, blood stained nipple discharge will be categorized as probably malignant. Presence of other lumps in the breast, non bloody discharge from the nipple will be categorized as probably non malignant. Presence of anyone of the signs shall be considered as abnormal. **IV. BREAST SELF EXAMINATION** BSE is a routine examination that should be carried out at the same time each month to physically check for any lumps or other changes. It entails two important components, i.e. looking and feeling. With this method, women should learn what is normal for them, so that they can recognize any changes immediately. Women should be encouraged to be aware of what is normal breast and recognize changes in their breast size, shape, skin and nipples as soon as possible by self examination once in a month or two basis. Most of the breast lumps are detected when women take bath.		

TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHER LEARNERS ACTIVITY	AV AIDS
		a. POSITION • One important component during breast examination is the position. Depending on whether looking at or feel in their breast, women should select different options. Use of a mirror and a proper light system facilitate detection of abnormalities. Breast self examination can be done either in the sitting or lying down position (dusting the hand with powder or using cream). • Both arms placed over your waist : place your hands on your waist and press inward and turn side to side to note any changes. • Both arms raised above head : place your hands behind you head and press forward. Again, turn side to side and look for changes. • Slightly bending forward with arms over waist: place your hands at your waist and bow toward the mirror, letting the breasts fall forward. Note any change in shape. • Women in sitting position. • Flat on your back with a pillow or folded towel under the shoulder of the breast to be examined and use the opposite hand of the breast you would like to examine. • Stand undressed in front of a mirror that is wide enough to watch your sides.		

TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHER LEARNERS ACTIVITY	AV AIDS
		b. HAND MOVEMENTS Use the pads of three middle fingers (pink areas) to examine every inch of you breast tissue. Move your fingers in small circular and regular movement to cover. The entire breast part by part. Do not lift your fingers from your breast at between palpations. You can use powder, lotion or soap to help your fingers glide from one spot to the next. If you have difficulty using or feeling with the finger pads of one of both hands, try to using the palm of your hand. **c. PALPATION PERIMETER** The examination area is bound by the line which extends down from the middle of the arm fit to just beneath the breast, continues across the underside of the breast to the middle of the breast bone, then moves up and along the collar bone and back to the middle of the arm fit (shaded area). Most cancer breast occur in the upper outer area of the breast. **d. PRESSURE LEVEL :-** For each small circle, change in the amount of pressure, so you can feel all the different levels of your breast tissue. Make each circle three times: once light, once medium and once deep – before you move onto the next area.		 

TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHER LEARNERS ACTIVITY	AV AIDS
		e. BREAST PALPATION Use the following search pattern to examine all of your breast tissue. Palpate carefully beneath the nipple. Start in the arm fit, proceed downward to the lower boundary. Move a fingers toward the middle and continue palpating upward till you reach the collar bone. Repeat till you cover all the breast tissue. Make atleast 6 strokes before the nipple and 4 strokes after the nipple. 10 – 16 strokes may be needed to cover all the breast tissue. Women who have any breast surgery should still examine the entire area and the scar. Any scar should also be carefully examined from end to end.Other search patterns can be used to cover the breast depending on the woman's personal choice. First alternative is in a circular pattern, second is in a triangular pattern; full coverage of both breasts, one by one, and is very important. **f. AXILLARY EXAMINATION** Examination of the arm fits. **g. CHECK FOR NIPPLE DISCHARGES** Squeeze your nipples to check for discharge. Many women have a normal discharge. Nipple discharge can also be a sign of a breast problem. Look for discharge in your bra or clothing. Report any discharge to your physician.		 

TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHER LEARNERS ACTIVITY	AV AIDS
		h. BREAST ABNORMALITIES • Lumps, bumps or thickening: feel for a lump, bump or thickening that has not been there before. • Pain (only when it is a new and persistent pain report to doctor). • Changes in skin color or texture: peaud' orange. • Changes in skin color or texture: redness/ - eczema (beginning). • Changes in skin color or texture : redness / eczema (advanced) • Leaking: look for dripping, leaking or discharge from a nipple (greenish discharge). • Nipple change: look for a changes in the way your nipple is pointing: nipple retraction (beginning). **CONCLUSION:** The breast plays a significant role in a woman's sexuality and self – identity. A breast disorder, weather benign or malignant, can cause great anxiety and fear of potential disfigurement, loss of sexual attractiveness, and even death. Must have expertise in the assessment and management of not only the physical symptom but also the psychosocial symptoms with breast disorders.		

TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHER LEARNERS ACTIVITY	AV AIDS
		SUMMARY:- So far, we have seen about the anatomy and physiology of breast, meaning of cancer breast, causes and risk factors, signs and symptoms, diagnostics examination, treatment and preventive measures. **REFERENCES:-** 1. Burnner and suddarth's "TEXT BOOK OF MEDICALSURGICAL NURSING" Phyladel phia, Lippincott, 16th edition, 2014, 2. R.A., Paul, P., Willianms, B., Smeltzer, S.C., & Bare, B.G. (2010). Textbook of Canadian medical surgical nursing (2nd ed). 3. Philadelphia, Pennsylvania: Wolters Kluwer Health / Lippincott Williams & Wilkins. 4. www.breastcancer.org 5. www.cancer.ca 6. www.cancer.gov		

பெயர்	:	எஸ்.எமரால்ட் ராஜ குமாரி
வகுப்பு	:	2வது வருடம் எம்.எஸ்.சி நர்சிங்
தலைப்பு	:	மார்பக புற்றுநோய் மற்றும் தடுப்பு முறை
குழு	:	30 - 50 வயதிற்கு உட்பட்ட பெண்கள் மட்டும்.
இடம்	:	அரசினர் சுகாதார மையம், கஸ்பா, வேலூர்.
காலம்	:	60 நிமிடங்கள்
விரிவுரை வந்த விதம்	:	விளக்க விரிவுரை, மற்றும் செய்முறை
விளக்க உதவி கருவி	:	மாதிரி உருவம், கனிப்பொறி, விளம்பர சுவரொட்டிகள்

பொதுவான நோக்கங்கள்:

பல்லூடக பாட இறுதியில், தாய்மார்கள் ஆழ்ந்த அறிவையும் நேர்மறை குணாதியத்தையும் மற்றும் சுய பரிசோதனையின் மூலம் வீட்டிலேயே மார்பக பரிசோதனை செய்து ஏதேனும் அசாதாரண அறிகுறிகள் இருக்குமாயின் மருத்துவமனைக்கு வருவதற்கு ஏதுவாகிறது.

முக்கிய நோக்கங்கள்: (அம்சங்கள்)

பல்லூடக பாட இறுதியில் தாய்மார்களால் இயலுபவை.

- மார்பக உடற்கூறியியல் மற்றும் உடலியலை மறு ஆய்வு செய்வார்கள்.
- மார்பக புற்றுநோயை வரையறுக்க இயலும்.
- மார்பக புற்றுநோயின் காரணங்கள் மற்றும் அதன் அவய காரணிகளை பட்டியலிட முடியும்.
- மார்பக புற்றுநோயின் அறிகுறிகளை பட்டியலிடுதல்.
- மார்பக புற்றுநோய்க்கான சிகிச்சை மற்றும் தடுக்கும் முறைகளை விளக்குதல்.
- சுய மார்பக பரிசோதனை செய்தல்

நேரம்	முக்கிய நோக்கங்கள்	பாடப்பொருள்	ஆசிரியரின் செயல்பாடு கற்பவர் செயல்பாடு	ஒலி, ஒளி உபகரணங்கள்
1 நிமிடம்	பல்லூடக பாட இறுதியில் தாய்மார்களால் இயலுபவை.	**<u>முன்னுரை:</u>** இன்றுவரை பெண்களின் மார்பகம் அழகிற்கான ஆண் - பெண் பால்ப்பண்பிற்கான, மற்றும் தாய்மைக்கான ஒரு அடையாளமாக விளங்கி வருகின்றது. மார்பகங்களின் ஏற்படும் பிரச்சனைகளை உடனடியாகக் கருத்தில் கொண்டு கவனிக்க வேண்டும். பெண்களுக்கு ஏற்படும் மார்பக பிரச்சனைகளில் பொதுவான பிரச்சனை மார்பக புற்றுநோய் ஆகும். மார்பக புற்றுநோயை மார்பக கார்சிநோமா என்றும் கூறலாம். இது நுரையீரல், இரைப்பை, கல்லீரல், மற்றும் குடற்புற்றுநோய் அடுத்து 5 வது இடத்தில் இருக்கிறது. தற்போது மார்பக புற்றுநோய் பெருகி வருகிறது, அதனால் இப்புற்றுநோய் பெண்களைப்பாதிக்கும் புற்றுநோயில் 2 வது இடத்தில் இருக்கிறது. **மார்பக புற்றுநோயின் உடற்கூறும், உடலியலும்.** மார்பகம் பால் சுரப்பி என்பது பெண்களின் இனப்பெருக்க உறுப்புகளில் துணைச்சுரப்பியாகும். பருவமடைவதற்கு முன்பு மார்பகம் பெண்களுக்கு சிறியதாகவும் முதிராமலும் இருக்கும்.		

நேரம்	முக்கிய நோக்கங்கள்	பாடப்பொருள்	ஆசிரியரின் செயல்பாடு கற்பவர் செயல்பாடு	ஒலி, ஒளி உபகரணங்கள்
		பருவமடையும் நேரத்தில் மாதவிடாய் தொடங்குவதற்கு முன்பு இவை வளர தொடங்கும். பருவடைந்த பிறகு அவை ஈஸ்ட்ரோஜன் மற்றும் புரோஜஸ்ட்ரான் என்ற இரு ஹார்மோன்களின் தாக்கத்தால் வளர்ந்து முதிர்ந்த நிலையை அடைகின்றது. கருத்தரித்த நிலையில் மார்பகமானது மேலும் முதிர்ச்சியடைந்து தாய்ப்பால் ஊட்டுவதற்க்கு ஏதுவான நிலையை பெருகின்றது. **அமைப்பு:** **மார்பகம் கீழ்காணும் பாகங்களை உள்ளடக்கியுள்ளது.** ❖ சுரக்கும் திசு ❖ இழைம திசு ❖ கொழுப்பு திசு ஒவ்வொரு மார்பகமும் 15 - 20 சுரக்க திசு மடல்களைக் கொண்டது ஒவ்வொரு மடல்களும் அதற்கான சிறிய மடல்களுடன் (அல்வியோலா) மார்பக காம்பினைச் சுற்றிப் பரவிக் காணப்படுகிறது. அச்சிறுமடல்கள் பல சிற்றறை கொண்டு ஒரு நுண்ணியம் குழாயில் திறக்கின்றன். இவை அனைத்தும் ஒன்றினைந்து ஒரு பெரிய வெளியேற்றும் குழாயைப் பெற்றுள்ளன. அதுவே லாக்டிபெரஸ் குழாய் ஆகும். இழைம திசு சுரக்கும் திசுவையும், அக்குழாய்களையும் கொண்டுள்ளது. இச்சுரப்பின் மேற்சுரப்பிலும் ஒவ்வொரு இழைம திசு நடுவிலும் கொழுப்புத் திசு காணப்படும்.		

நேரம்	முக்கிய நோக்கங்கள்	பாடப்பொருள்	ஆசிரியரின் செயல்பாடு கற்பவர் செயல்பாடு	ஒலி, ஒளி உபகரணங்கள்
		மார்பகத்தின் மையத்தில் முக்கோணம் போன்று மேற்பரப்பு உடையது மார்பக காம்பு, அதைச் சுற்றி சற்று நிறம் அதிகரித்துக் காணப்படும் இடம் ஏரியோலா எனப்படும். இந்த ஏரியோலாவின் பரப்பில் அதிக அளவில் எண்ணெய்ச் சுரப்பிகள் காணப்படும் அது குழந்தைக்கு பாலூட்டுகையில் நெகிழ்வு தன்மையை தருகிறது. பெண்களை பொறுத்த வரையில் மார்பக பிரச்சனைகள் கருத்தில் கொள்ளுதல் வேண்டும். **மார்பகத்தின் வேலைகள்:** **மார்பகத்தின் முதன்மையான பணி :** **பால் சுரப்பிகள் :** இது குழந்தைப் பிறந்தப்பின் பாலூட்டுவதற்குப் பயன்படுகிறது. இதன் வட்ட வடிவிலான அமைப்பு தாயின் உடலிருந்து வெப்பத்தை வெளியேற விடாமல் தக்கவைத்துக் கொள்கிறது.		

நேரம்	முக்கிய நோக்கங்கள்	பாடப்பொருள்	ஆசிரியரின் செயல்பாடு கற்பவர் செயல்பாடு	ஒலி, ஒளி உபகரணங்கள்
		மார்பக புற்றுநோய்: **வரையறை:** மார்பகப் புற்றுநோய் என்பது மார்பகங்களில் உள்ள நுண்குழாய்கள் மற்றும் மடல்களைச் சுற்றியுள்ள எபித்தீலியச் செல்களின் அபரிதமான வளர்ச்சி மற்றும் உடலின் மற்றப் பகுதிகளுக்கும் பரவும் தன்மையுடைய நோய் ஆகும். **நிகழ்வுகள்:** வளர்ந்து வரும் நாடுகளில் புற்றுநோயினால் ஏற்படும் இறப்பின் எண்ணிக்கை 95% / 3.4 மில்லியன் ஆகும். அமெரிக்காவில் 2014ம் ஆண்டுக் கணக்கின்படி 232,670 பேருக்கு பரவக்கூடிய நோயாகப் புற்றுநோய் இருப்பதாகவும், 62,570 பேருக்கு பரவாதப் புற்றுநோய் இருப்பதாகவும், 40,000 பேர் மார்பக புற்றுநோயினால் இறந்திருப்பதாகவும் கூறுகிறது. இந்தியாவில் ஒராண்டிற்கு மார்பக புற்றுநோயினால் சுமார் 80,000 பேர் பாதிக்கப்படுவதாகவும், அதாவது 22 பேருக்கு ஒரு பெண் மார்பக புற்றுநோயினால் பாதிக்கப்படுவதாக உத்தேசிக்கப்பட்டுள்ளது.		

நேரம்	முக்கிய நோக்கங்கள்	பாடப்பொருள்	ஆசிரியரின் செயல்பாடு கற்பவர் செயல்பாடு	ஒலி, ஒளி உபகரணங்கள்
15 நிமிடம்	மார்பக புற்றுநோயின் காரணங்கள் மற்றும் அதன் அவய காரணிகளை பட்டியலிட முடியும்	**<u>காரணங்கள்:</u>** ❖ இவை அதிகமாக மரபியல் மாற்றங்களால் ஏற்படும். ❖ 5-10% மட்டுமே அம்மாவிற்கோ/அப்பாவிற்கோ இருந்தால். ❖ 90% அளவிற்கு இப்புற்றுநோயானது மரபியல் அசாதாரணாங்கள் முதிர் வயது மற்றும் வாழ்க்கை முறைகளால் உருவாகிறது. **<u>ஆபத்தான காரணங்கள்:</u>** **<u>மார்பகப் புற்றுநோயிற்கான ஆபத்தான அறிகுறிகள்:</u>** ✓ கக்கத்தில் கட்டி ஏற்படுதல் ✓ மார்பகத்தின் அளவு/வடிவம் மாறும். ✓ மார்பகக் காம்பு வழியாக நீர் வெளியேறுதல். ✓ தெளிவான அதாவது மஞ்சள் (அ) பச்சை நீர்/இரத்தம் கலந்த நீர் வெளியேறுதல். ✓ சீழ் போன்ற தோற்றமுடையது. ✓ தோல் நிற மாற்றம் (அ) கடினமாக மாறும் ஹார்மோன் ஈடுபாடு இன்னும் அதிகரிக்கும்.		

நேரம்	முக்கிய நோக்கங்கள்	பாடப்பொருள்	ஆசிரியரின் செயல்பாடு கற்பவர் செயல்பாடு	ஒலி, ஒளி உபகரணங்கள்
		மாற்றத்திற்குரிய ஆபத்தானக் காரணிகள்: ❖ உடற்பருமன் ❖ அமர்ந்த வேலை ❖ உடற்செயல்கள் குன்றியவர்கள் ❖ கருத்தரிக்காதவர்கள் ❖ ஈஸ்ட்ரோஜன், புரோஜெஸ்ட்ரான் கொண்டு கொடுக்கும் ஹார்மோன் சிகிச்சை. ❖ மது அருந்துதல் **மாற்றமுடியாத ஆபத்தானக் காரணிகள்:** ❖ வயதானவர்கள் ❖ குடும்பத்தில் யாருக்கேனும் முன்னால் புற்றுநோய் இருந்திருந்தால் ❖ நீண்ட நாட்களுக்கு மார்பகப் பிரச்சினை கொண்டவர்கள் (அ) மற்றொரு பக்க மார்பகம் இதற்கு முன் புற்றுநோயால் பாதிக்கப்பட்டிருந்தால். ❖ மிகவும் சீக்கிரமாக பருவமடைந்திருந்தால். ❖ அதிக வயதில் தாய்மை அடைதல் ❖ மார்பக கதிர்வீச்சு ❖ டை ஈத்தைல் ஸ்டிஸ்பெஸ்டிரால் மருந்துகளைப் பயன்படுத்துதல்		

நேரம்	முக்கிய நோக்கங்கள்	பாடப்பொருள்	ஆசிரியரின் செயல்பாடு கற்பவர் செயல்பாடு	ஒலி, ஒளி உபகரணங்கள்
10 நிமிடம்	மார்பக புற்றுநோயின் அறிகுறிகளை பட்டியலிடுதல்	**மிகவும் ஆபத்தானக் காரணிகள்:** ❖ மார்பகம் அண்டம்/குடல் புற்றுநோய் போன்றவற்றால் குடும்பத்தினர் பாதிப்புற்று இருந்தால். ❖ நீண்ட நாட்களாக மார்பகக் கட்டியால் அவதியுற்றவறாக இருந்தால். **அறிகுறிகள்**: ✓ மார்பகத்தின் அளவு மாறுதல் ✓ வலி / தொடும்போது வலி ஏற்படும் ✓ சிவந்துபோதல் ✓ மார்பகக் காம்பின் நிலைமாற்றம் ✓ மார்பகக் காம்பைச் சுற்றி வெடிப்பு ஏற்படுதல் ✓ மார்பகத்தில் புண் ஏற்படும் குணமடையாது. ✓ குழுவடைதல் ✓ பின்வாங்கும் இயல்வு (மார்பகம்) ✓ மார்பகக் கடினமாதல் நீர் வெளியேறுதல். ✓ தோல் / கட்டி கடினமாதல் ✓ பின்வாங்கும் இயல்புடைய மார்பகக் காம்பு.		

நேரம்	முக்கிய நோக்கங்கள்	பாடப்பொருள்	ஆசிரியரின் செயல்பாடு கற்பவர் செயல்பாடு	ஒலி, ஒளி உபகரணங்கள்
15 நிமிடம்	மார்பக புற்றுநோய்க்கான சிகிச்சை மற்றும் தடுக்கும் முறைகளை விளக்குதல்	**கண்டறியும் ஆய்வுகள் :** ❖ சுய மார்பகப் பரிசோதனை செய்யும்போது ஏதேனும் அசௌகரியமான நிலைமை காணப்பட்டால் மருந்துவரீதியிலானப் பரிசோதனை செய்யும்போது புற்று நோய் வருவதற்கான வாய்ப்புகளைக் கண்டறியலாம். ❖ சிறிய ஊசி மூலம் மார்பகத் திசு பரிசோதனை/ மார்பகத் திசு பரிசோதனை/மார்பகக் காம்பில் இருந்து வெளியேறும் நீர் - இவைகளை திசுத்துயரியல் ஆராய்ச்சிக்கு அனுப்பி கண்டறியலாம். ❖ மார்பக ஊடு கதிர் பரிசோதனை தீவிர ஒலிச் செலுத்தி ஆய்வு செய்து மார்பகத்தின் நிலைமையை கண்டறியலாம். மார்பாகத்தில் இருந்து சிறிய அளவு திசுவை திருத்துயரியல் ஆராய்ச்சிக்கு அனுப்பி வைக்கலாம்.		

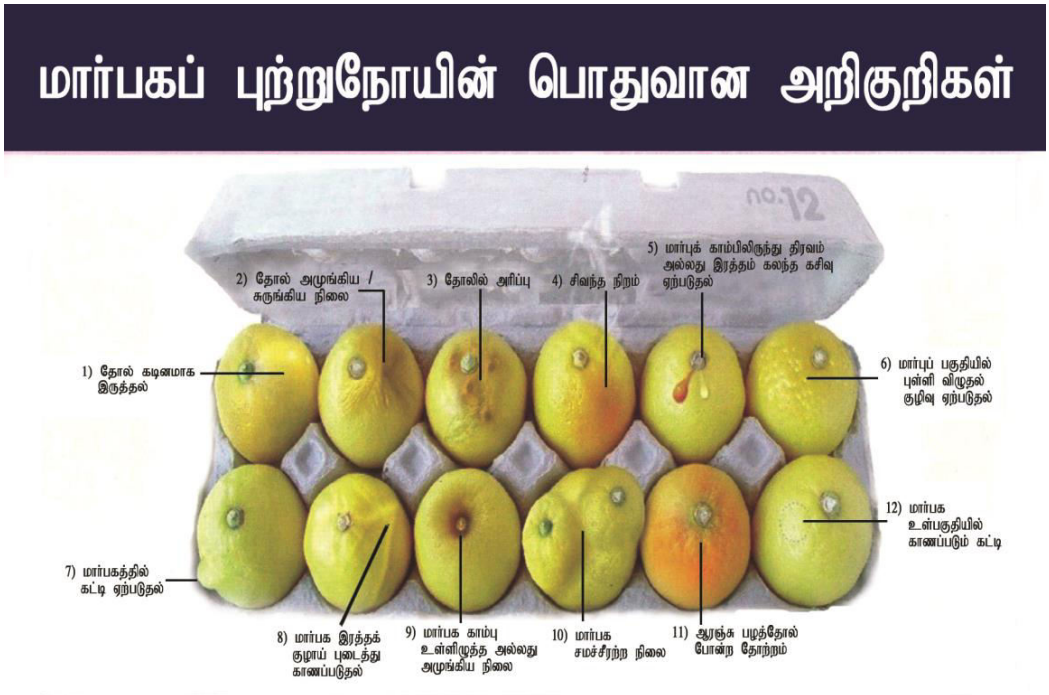
நேரம்	முக்கிய நோக்கங்கள்	பாடப்பொருள்	ஆசிரியரின் செயல்பாடு கற்பவர் செயல்பாடு	ஒலி, ஒளி உபகரணங்கள்
		<u>சிகிச்சை முறைகள்</u> **<u>கீழ்கானுபவை புற்றுநோய்கான சிகிச்சை முறைகள்:</u>** ❖ அறுவை சிகிச்சை ❖ கதிரியக்கச் சிகிச்சை ❖ உயரியல் முறையிலான சிகிச்சை (குறிப்பான மருந்துகளைப் பயன்படுத்துதல்) ❖ ஹார்மோன் சிகிச்சை ❖ மருந்துக் கொண்டு நோய் தீர்த்தல் **மார்பக புற்றுநோய்க்கான அறுவை சிகிச்சை முறைகள்:** ❖ கட்டிகளை நீக்குதல் ❖ மார்பக நீக்கம் ❖ நிணநீர் முடிச்சு அறுவை சிகிச்சை ❖ சென்டினல் முடுச்சு திசு ❖ கக்கத்தில் உள்ள நிணநீர் முடிச்சை வெட்டி எடுத்தல். ❖ மார்பக மறுசீரமைப்பு அறுவைச் சிகிச்சை. ❖ மார்பக நீக்க அறுவைச் சிகிச்சை:		

நேரம்	முக்கிய நோக்கங்கள்	பாடப்பொருள்	ஆசிரியரின் செயல்பாடு கற்பவர் செயல்பாடு	ஒலி, ஒளி உபகரணங்கள்
35 நிமிடம்	சுய மார்பக பரிசோதனை செய்தல்	**மார்பக சுயப் பரிசோதனை** மார்பக சுயப் பரிசோதனை செய்து கொள்வதற்கு முன் பெண்கள் தங்களுடைய மார்பகங்களின் இயல்பான நிலை அதாவது மார்பக அளவு, அமைப்பு, தோல், மார்புக்காம்பு பற்றி தெரிந்துகொள்ள வேண்டும். இயல்பு நிலை தெரிந்தால் தான் மார்பகங்களில் ஏற்படக்கூடிய அசாதாரண மாற்றங்கள் மற்றும் நோய் தன்மையை உடனுக்குடன் கண்டுகொள்ள முடியும். 1. **சுய பரிசோதனை மேற்கொள்ள ஏதுவான பல்வேறு நிலைகள்** ❖ கைகள் இரண்டும் தொங்கவிடப்பட்ட நிலை ❖ இரண்டு கைகளையும் இடுப்பின்மேல் வைத்த நிலை ❖ இரண்டு கைகளையும் தலைமேல் வைத்த நிலை’ ❖ இரண்டு கைகளையும் இடுப்பின்மேல் வைத்து கொஞ்சம் முன்னோக்கி குனிந்த நிலை ❖ அமர்ந்திருக்கும் நிலை ❖ படுத்திருக்கும் நிலை ❖ மேலாடை அணியாமல், அகலமான கண்ணாடியின்முன் நின்று, இரண்டு கைகளையும் தளர்வாக வைத்துக் கொண்டு மார்பகங்களை கவணிக்க வேண்டும்.		

நேரம்	**முக்கிய நோக்கங்கள்**	**பாடப்பொருள்**	**ஆசிரியரின் செயல்பாடு கற்பவர் செயல்பாடு**	**ஒலி, ஒளி உபகரணங்கள்**
		2. **சுய பரிசோதனைக்கு கைகளை பயன்படுத்தும் வழிமுறை** ❖ கையின் நடு மூன்று விரல்களின் மேல் மற்றும் நடு பகுதியை பயன்படுத்தி, மார்பகத்தின் ஒரு பகுதியில் தொடங்கி, பகுதி பகுதியாக முழு மார்பகத்தையும் விரல்களை எடுக்காமல், தடவிப் பார்த்து சுய பரிசோதனை செய்ய வேண்டும். ❖ கையின் விரல்களை பயன்படுத்த கடினமாக இருந்தால், உள்ளங்கைகளையும் பெருவிரலையும் பயன்படுத்தலாம். 3. **பரிசோதனை செய்ய வேண்டிய எல்லை** ❖ பரிசோதனை செய்ய வேண்டிய எல்லை என்பது அக்குளின் நடுப்பகுதியிலிருந்து தொடங்கி மார்பின் சற்று கீழ்பகுதி, நெஞ்செலும்பின் நடுப்பகுதி, காலர் எலும்பின் சற்று கீழ்பகுதி வரை மீண்டும் அக்குள் பகுதிவரை ஆகும். 4. **அழுத்தம் கொடுக்கும் நிலை** ❖ மார்பகத்தை சிறுவட்ட பகுதிகளாக பிரிந்து, ஒவ்வொரு சிறுவட்ட பகுதியிலும், முதலில் லேசாக, இரண்டாவது சற்று அதிகமாக, மூன்றாவது மேலும் அழுத்தமாக என மூன்று விதமாக அழுத்தி பரிசோதிக்கவும்.		

நேரம்	முக்கிய நோக்கங்கள்	பாடப்பொருள்	ஆசிரியரின் செயல்பாடு கற்பவர் செயல்பாடு	ஒலி, ஒளி உபகரணங்கள்
		மார்பகத்தை தடவி பார்த்தல். ❖ முழு மார்பகத்தையும் அக்குளிலிருந்து மார்பகக் காம்புவரை குறைந்த பட்சம் நான்கு வரிசை, காம்பிலிந்து காலர் வரை ஆறு வரிசை என குறைந்தது 10 - 16 வரிசைகளாக சுயப் பரிசோதனை முறையை மேற்கொள்ள வேண்டும். 5. **அக்குள் பகுதியில் பரிசோதனை** 6. **மார்பு காம்புகளில் திரவங்கள் வெளிப்படுகிறதா என பரிசோதித்தல்.** ❖ மார்பு, காம்புகளை அழுத்தி ஏதாவது திரவங்கள் வெளிப்படுகிறதா என பரிசோதித்தல் வேண்டும். பெண்களுக்கு மார்பக காம்பில் திரவம் வெளிப்படுவது இயல்பாகவும் இருக்கும். அதே நேரத்தில் மார்பகக் காம்பில் திரவங்கள் வெளிப்படுவது, மார்பகத்தின் நோய் அறிகுறியாகவும் இருக்கலாம். உள் மற்றும் வெளி ஆடையில் திரவங்கள் கசிந்து இருக்கின்றதா என கவனிக்க வேண்டும். அவ்வாறு இருந்தால் மருத்துவரை அணுக வேண்டும்.		

நேரம்	முக்கிய நோக்கங்கள்	பாடப்பொருள்	ஆசிரியரின் செயல்பாடு கற்பவர் செயல்பாடு	ஒலி, ஒளி உபகரணங்கள்
		மருத்துவமனையில் மேற்கொள்ளப்படும் மார்பகப் பரிசோதன முறை: ❖ மருத்துவமனையில் மேற்கொள்ளப்படும் மார்பகப் பரிசோதனை (Clinical Breast Examination) முறை மிக எளிதானது, வலியில்லாதது. ❖ இப்பரிசோதனை, பெண் மருத்துவர் மற்றும் முறையாக பயிற்சி பெற்ற பெண் செவிலியர்கள் மூலமாகவே செய்யப்படுகிறது. ❖ இப்பரிசோதனையில் பெண்ணின் மார்பகங்களை தடவி பார்த்து ஏதேனும் அசாதாரண மாற்றங்கள் மற்றும் புற்றுநோய் சாத்தியக்கூறுகள் உள்ளனவா என்பது கண்டறிப்படும். **முடிவுரை :** மேற்குறிப்பிட்டுள்ள மார்பகப் புற்றுநோயின் அறிகுறிகளை கண்டறிய மருத்துவரிடம் சென்றுதான் பரிசோதிக்க வேண்டும் என்பது இல்லை. நாம் குறிப்பிட்ட இடைவேளையில் மாதம் ஒரு முறை மார்பக சுய பரிசோதனை செய்வதன் மூலமாக கண்டறியலாம்		


மார்பகப் புற்றுநோயின் பொதுவான அறிகுறிகள்
1) தோல் கடினமாக இருத்தல்
2) தோல் அமுங்கிய / சுருங்கிய நிலை
3) தோலில் அரிப்பு
4) சிவந்த நிறம்
5) மார்புக் காம்பிலிருந்து தீர்வம் அல்லது இரத்தம் கலந்த கசிவு ஏற்படுதல்
6) மார்புப் பகுதியில் புள்ளி விழுதல் குழிவு ஏற்படுதல்
7) மார்பகத்தில் கட்டி ஏற்படுதல்
8) மார்பக இரத்தக் குழாய் புடைத்து காணப்படுதல்
9) மார்பக காம்பு உள்ளிழுத்த அல்லது அமுங்கிய நிலை
10) மார்பக சமச்சீரற்ற நிலை
11) ஆரஞ்சு பழத்தோல் போன்ற தோற்றம்
12) மார்பக உள்பகுதியில் காணப்படும் கட்டி